

MICHIGAN FARM NEWS

MICHIGAN'S ONLY STATEWIDE FARM NEWSPAPER

MICHIGAN FARM BUREAU



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July 15, 1996
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Engler submits agricultural disaster request to USDA



Kirby Micho of Bernreuter Farms near Frankenmuth was opening this field up in preparation for planting cucumbers after the heavy rains of June 21. The operation, which normally plants 120 acres of cucumbers, had only been able to get 14 acres in when this photo was taken June 26. Dry bean planting was also on the schedule, weather and field conditions permitting. According to the Michigan Ag Statistics Service, dry bean planting was the latest ever recorded since recordkeeping began.

Farmland and Open Space Preservation Act updated

The future of farmland preservation in Michigan was strengthened recently with Gov. John Engler's signature on a package of amendments to the Farmland and Open Space Preservation Act, commonly referred to as P.A. 116.

The following is a summary of the amendments to P.A. 116 as approved in H.B. 4325; this is not a complete summary of the P.A. 116 Law.

- The definition of "agriculture" was clarified and updated to reflect the diversity of Michigan's agriculture and expanded to include poultry and poultry products, captive cervidae, berries, herbs, flowers, seed and other agricultural products. The management and harvesting of a woodlot is not an agricultural use under this Act.
- The definition of "agriculture" was clarified to include at least 51 percent or more of the area which is devoted to agricultural use. In addition, the Law defines specialty farms to include, but not limited to, greenhouses, equine breeding and grazing, breeding and grazing of cervidae, pheasants and other game animals, bees and bee products, mushrooms, aquaculture and other similar uses and activities.
- "Permitted uses" was expanded to include storage, retail marketing and processing of agricultural products if more than 50 percent of the stored, processed or merchandised products are produced by the farm operation during at least three of the last five immediately preceding years.
- "Person" is defined to include a limited liability company.
- "Prohibited use" is defined as that not consistent with agricultural use for farmland and is not consistent with the open space character of the land.
- The maximum term of agreement is set at 90 years.
- Allows for housing to be built for a farmer or farm employees.
- "Permitted uses" are allowed if the use does not adversely affect the productivity of the land or does not materially alter or negatively affect the existing conditions or use of the land; the use does not result in alterations to an existing structure which would allow it to be used for non-agricultural use and the new use conforms with all applicable federal, state and local laws and ordinances.

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Presidential candidate Bob Dole named "Friend of Agriculture"



Presidential candidate Bob Dole fielded questions from a host of agricultural representatives, including (l-r) 1995-96 FFA President Shannon Fisher and Rex and Kathleen Crumbaugh.

Michigan Farm Bureau's AgriPac Committee unanimously voted to endorse Republican candidate Bob Dole for the November presidential election.

Dole received news of the endorsement during a June 20 "agricultural town hall meeting" with Michigan farm leaders at Robinette Orchards in Kent County. Dole's appearance at the meeting and

the announcement of Farm Bureau's support for his presidential campaign received nationwide press coverage.

MFB President Jack Laurie, in announcing Dole's designation as a "Friend of Agriculture," cited the former Senate Majority Leader's efforts in drafting and passing the 1995 Farm Bill and his

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COVER STORY

Record-spring rainfall, followed by over five inches of rain on June 21, prompted Gov. John Engler to submit a request to the USDA Secretary of Agriculture to declare a 14-county area in the Saginaw Valley and Thumb as agricultural disaster areas, according to Dave Charney, Emergency Services Coordinator for the Michigan Department of Agriculture (MDA). He says the June 21 rain was the final straw in a 1996 extended planting season plagued with untimely rains and replanting in many locations.

"We in the MDA are looking at the series of storms as one big event, starting with the storms on May 9 and 10, again on May 19 and 20, and then again on June 15, 17 and 18," Charney explained. "When the big storm hit on June 21, the ground was so saturated with water from those prior storms that it simply couldn't absorb it."

According to Charney, Gov. Engler's request was made based on "24-hour flash reports" submitted by Farm Service Agency (FSA) county offices. Additional damage assessments are due in Lansing by July 15 for further review by the State Emergency Board on July 18, which could add more counties to the request list. "This second level of damage assessment will provide more specific data that will guide the secretary of agriculture in answering the Governor's request," Charney said.

With the June 21 storm, rainfall totals for the Thumb surpassed typical growing season totals, according to Phil Brimhall, chief agronomist for Michigan Sugar Company. "During June we had over 10.6 inches of rain in the Caro district, and as much as 22 inches in some areas since the first of

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News in Brief

From the President



Support "Friends of Agriculture"

In this issue of the *Michigan Farm News*, you'll find the list of candidates who have been designated by the Farm Bureau AgriPac Committee as "Friends of Agriculture." These people were selected based on the recommendations of county Farm Bureau candidate evaluation committees. I urge you to support them in the Aug. 6 primary election.

This year's primary and general elections are extremely important to our agricultural industry. Many state issues that are vital to farmers, like protection of private property rights, transportation funding and farmland preservation, may not be acted upon until a new legislature is elected. The men and women who you support in this election may be the deciding votes on these critical concerns.

Likewise, much remains to be done in the nation's capital. Although the farm bill was approved this year, many other issues affect agriculture remain pending, including pesticide law reform, obtaining a permanent 100 percent tax deduction for the self-employed, immigration reform to allow the entry of foreign workers to work in the U.S. for limited periods of time, passage of private property rights protection legislation, regulatory reform and repeal of the federal estate tax.

Another reason the elections of 1996 are so

important to agriculture is because of the looming impact of term limits on the Michigan legislature. Term limits will take affect beginning in 1998, opening up 80 or more seats in the state House. There are about a dozen state representatives, including leaders like Paul Hillegonds, Gary Randall and Carl Gnodtke, who are not seeking reelection this year.

If we assume the candidates elected in 1996 to fill these vacancies will seek reelection in 1998, these people will have an edge (thanks to the fact that they will have already served one two-year term) in seniority, knowledge of the legislative process and understanding of important issues. Therefore, it is not out of the question that these "experienced" lawmakers will be in line for committee chairmanships, maybe even House leadership positions. The people you elect this year may be House leaders in 1998.

Political candidates understand the value of Farm Bureau's endorsement. They know a high percentage of farmers are registered and reliably vote. It's estimated that 75 percent or more Farm Bureau members cast their ballot each election year. This outstanding level of steadfast participation in the election process is one of the reasons your organization has been so politically effective.

Candidates also know in a close election (like the 1990 race in which John Engler, with Farm Bureau's support, edged Gov. Blanchard) the Farm Bureau endorsement can make a big difference. Watch the campaign ads this summer and fall. You'll always see candidates proudly proclaiming their "Friend of Agriculture" status. They know this highly-respected designation encourages farmers and non-farmers to support the candidate, because a Farm Bureau endorsement tells the world this candidate has been fairly and comprehensively evaluated by a trusted and respected organization.

Again, I urge you to closely study the endorsement list and support these candidates. You can be confident they are men and women who have the best interests of your industry at heart.

Jack Laurie

Jack Laurie, President
Michigan Farm Bureau

Dairy Labor Workshop slated for Aug. 15

If you're like most dairy producers, finding and keeping good help ranks as one of the bigger daily headaches of keeping your operation running smoothly. In response to numerous requests from dairy partner teams, Michigan State University Area of Expertise Dairy agents in Southwest Michigan and the Michigan Farm Bureau will be sponsoring a Dairy Labor Management workshop on Aug. 15 at the Kellogg Biological Station from 10 a.m. to 3:30 p.m.

According to program manager, Stan Moore, Dairy Area of Expertise Agent for Eaton, Calhoun and Barry Counties, the program is patterned after last year's successful farmer-to-farmer workshop, and will feature dairy producers each discussing a labor management issue based on their own farm opera-

tion and experience, along with closing comments from former MSU Ag Labor Specialist Al Shapley discussing the farm manager/owners management style and impact on getting and keeping good help.

Producers confirmed as speakers thus far include:

- Ken Nobis, St. Johns — Labor Recruitment;
- John Vanderhoff, Coldwater — Managing Part-time labor;
- Ken Gasper, Belding — Dairy Labor Training;
- LaVerne Bivens, Jackson — Employee Retention.

There is a \$15 registration fee required to cover material and lunch costs. Reservations will be limited to the first 50 producers and can be made by calling KBS at (616) 671-2412 or 800-521-2619.

Toll-free crop advisory assistance available

To assist growers for this growing and harvest season, Michigan State University Extension has set up an 800 emergency Crop Advisory telephone system. Growers wishing information on crop alternatives, planting dates, spraying, harvesting alternatives, post emergence, weed control and special assistance in feeding damaged crops, may call 800-433-MSUE.

Be prepared to share information on the

county you are calling from, the crop that is of concern and specific type of assistance. Your call will then be automatically forwarded to an Extension agent or specialist who will be able to provide the technical expertise needed on an individual basis. The call is free, the transfer to the agent or specialist is also free. Before you place the 800 call, please telephone your local Extension agent in the county in which you are currently farming.

Hedge-to-arrive fallout continues

Two of the biggest names in farm commodity trading face lawsuits from Midwestern farmers for failing to disclose risks associated with hedge-to-arrive contracts. Archer Daniels Midland Co. and Cargill Inc. have been accused of not disclosing hedge-to-arrive risks.

Many farmers, hoping to nail down a good return from their crops, hedged that corn prices would be steady or decline this year. Instead, prices leaped to record highs, and now demands are being made that these farmers come up with money or grain to make good on some complicated contracts.

Federal authorities in Chicago and Washington are trying to determine whether fraud was committed and if federal trading laws were broken.

Nine billion bushel corn year needed

To ease cattle herd liquidation, a large U.S. corn crop — nine billion bushels — is needed, according to the National Cattlemen's Beef Association and cattle industry analysts. The Agriculture Department is predicting a 9.125 billion bushel crop, but a better picture of the crop will be painted by USDA's first field report due out in August.

Ag economist, Chuck Lambert, blames the current herd liquidation partially on high feed costs and that the calf market has bottomed out. With cheaper feed costs after a bumper corn crop, Chuck Lambert said he expected calf prices to climb back up to the break-even range of 70 to 80 cents per pound.

Beef industry analysts, at a press conference said they expected beef production to hit 26.2 billion pounds this year, jump to 26.5 billion pounds next year and slip back to 25.8 billion pounds in 1998.

MSU to offer Glynn McBride scholarships

Michigan State University, the nation's pioneer land-grant university, will offer four \$1,500 scholarships in honor of retired professor Glynn McBride and to promote Agriculture Cooperatives. McBride retired from teaching in 1984, but continues to be active in promoting Michigan agriculture.

To be eligible for the Glynn McBride — Michigan Association of Farmer Cooperatives Endowed Scholarship fund, students must be enrolled in one of the following degree programs: Agriculture and Extension Education, Agriculture Economics, Animal Science, Crop and Soil Sciences, Horticulture, or Food and Science and Human Nutrition.

Students must also meet these minimum requirements: achieve sophomore status or higher, be enrolled in an undergraduate program in the college, maintain a 3.0 grade point average and have an interest in a career with Agriculture Cooperatives.

Deadline is Aug. 1 and interested candidates should contact Office of Academic and Student Affairs at (517) 355-0234 or write Dr. Richard Brandenburg, Associate Dean, 121 Agriculture Hall, MSU, East Lansing, MI 48824-1039.

Don't forget to recycle those pesticide containers!

Retailers who are members of the Michigan Agri-Business Association this summer are continuing their pesticide container recycling program. Participating dealers are collecting the containers during the extended planting season, and will coordinate scheduled pickups with cooperating distributors, including Grower Service, Helena Chemical, and Terra International, who will in turn deliver the containers to grind sites for further processing.

Producers are encouraged to return their clean, empty pesticide containers to the dealer where they purchased the product, as soon as their schedules permit. Containers will be inspected by dealers to ensure they're free of pesticide residue before being accepted for recycling.

For more information, contact the Association office at 517-336-0223 or your local pesticide retailer.

Cattle liquidation high

Ranchers are being forced to liquidate their cattle at high levels, similar to those of the late 1970s, due to drought and related terrible grazing conditions, the Agriculture Department said.

Hay stocks are low, with no guarantee of replenishment, the agency said. Some good news, however, is that recent rainfall in some drought-stricken areas has improved grazing conditions to some degree, according to USDA.

"Without some relief from high grain prices, even with improved forage supplies, many cattle producers will be forced to cull more cows from the herd as feeder-cattle prices will remain under pressure," according to a report from USDA's Economic Research Service.

During the second quarter of 1996, cattle slaughter is expected to reach its highest level in 30 years. This increased slaughter, combined with the marketing of fed cattle and heavy animal weights, means that production in the second quarter should be an estimated 5.5 percent higher than last year.

Tart cherry crop down — prices up from last year

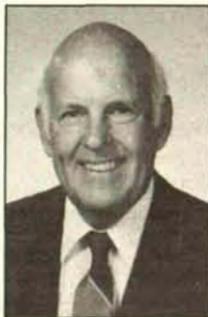
Michigan's 1996 tart cherry crop is pegged at 180 million pounds, down 42 percent from last year's crop of 310 million, according to the Michigan Agricultural Statistics Service. According to a recent release, the 1996 crop is also 21 percent below the 1991-95 average of 229 million pounds.

Cool spring weather, combined with a prolonged bloom that resulted in a disparity of maturity, and a lack of an adequate bee population have all put a damper on this year's crop. Harvest is expected to begin a week later than normal.

The overall U.S. crop is down 35 percent, with production outside of Michigan projected to total 60 million pounds, meaning that the state will still provide 73 percent of the expected total.

According to Michigan Agricultural Cooperative Marketing Association General Manager, Randy Harmson, growers should be expecting prices of good quality fruit to range from 18 to 20 cents per pound this year.

Guyer announces MDA retirement



Dr. Gordon Guyer, director of the Michigan Department of Agriculture (MDA), has announced that he will step down from his post on Oct. 4, 1996. Guyer was appointed to the position by the Michigan Commission of Agriculture in February of 1994.

Gov. John Engler acknowledged Guyer's many contributions, saying, "Gordon has had a long and distinguished career in public service. He is known to many of us as the man nobody would allow to retire." Engler continued, "Gordon has given so much to all of us in Michigan. His service to this great state and to Michigan State University has allowed all of us to benefit from his extraordinary talent. I wish Gordon, his wife, Norma, and their family all the best for a happy retirement."

Gordon Guyer is widely known and respected for a long and distinguished career in agriculture, higher education and natural resources development. A Michigan native, he began his public service career as an instructor of entomology at Michigan State University (MSU) in 1953. Throughout the years, Guyer held many MSU posts — most recently, that of university president just prior to being appointed to the MDA position. Guyer also served as director of the Michigan Department of Natural Resources in the late 1980s. Among his many honors are the Michigan Farm Bureau Distinguished Service to Agriculture Award, the Distinguished Faculty Award from the Michigan Association of Governing Boards, and MSU's Distinguished Faculty Award.

The director of agriculture is appointed by the Michigan Commission of Agriculture, which are accepting applications for the post with a July 15 application deadline. It's possible the Commission will name Guyer's replacement as early as July 25.

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Capitol Corner

For more information on legislative topics in the Michigan Farm News, call 800-292-2680.

STATE ISSUE

Farmland & Open Space Preservation Act updated

Continued from front page

- The State Land Use Agency (DNR) is required to notify owners seven years before the expiration of their contract and of the options for claiming credits in the remaining seven years.
 - The law attempts to clarify that the local units of government *shall not* impose a special assessment for sanitary sewer, water, lights or nonfarm drainage unless the land, building or structure actually uses the special assessment. Only that portion of the special assessment directly attributable to the actual use will be levied against the property. The section further states that upon termination of the agreement, the property owner will not be charged for any charges or interest greater than the initial cost of the assessment.
 - The law specifies the owner/farmer/claimant who is claiming a property tax credit must do so providing all necessary information including receipts showing the payment of the property tax. Failure to do so will provide that all future payments will be made jointly to the county treasurer and to the landowner.
 - The bill describes the procedure for determining life-lease or life-estate claim credits.
 - Requests for termination, due to the death of one of the individuals essential to the operation, may take place within three years of the death of the individual.
 - When the owner of the land becomes totally or permanently disabled or dies, the surviving owner/spouse may request a portion of the land which contained structures existing prior to the agreement be removed from the program. This includes an individual who may inherit property through Rights of Survivorship.
 - An agreement may be divided or split as long as the division or split follows the same criteria as for enrolling the land (i.e., 40 acres or more of which 50 percent or more is tillable).
 - "Individual essential to the operation" is defined as a co-owner, partner, shareholder, farm manager or family member and who, to a material extent, cultivates, operates or manages the farmland if that individual does one or more of the following:
 - has financial interest equal to or greater than one-half of the cost of the crops, livestock or products and is actively involved with the production.
 - works 1,040 hours or more annually on the farm.
 - A \$25 fee may be charged for splits or transfers.
 - Provides that an agreement may be extended for seven years.
 - Clarifies that buildings which existed prior to the agreement, and up to two acres of land, may be released from the program unless zoning requires additional acreage, but not to exceed five acres.
 - Provides for the removal of land from the agreement for a building site of up to two acres for individuals essential to the operation.
 - Provides for a window of opportunity to reduce the length of the agreement to seven years remaining provided the land has been in for an initial 10-year period. Requests must be made prior to April 1, 1997.
 - The law provides for an early out for land in the agreement prior to April 15, 1994. An individual has until April 1, 1997 to request termination of all or a portion of the land in P.A. 116. Credits received in the last 7 years must be repaid without interest. The state shall notify local units concerning land removed from the program.
 - Provides for repayment of credits calculated for termination, other than early out, for the last seven years at 6 percent simple interest.
 - The DNR is required to provide a 30-day notice prior to placing a lien on the property at the maturing of the agreement.
 - If an owner chooses not to pay off credits on land that naturally terminated and has claimed credits in the last seven years, the credits shall attach as a lien to the property, but no interest shall be charged.
 - Only farmland development rights may be purchased from the funds collected.
 - The method in determining the repayment of the credits in the event of death or disability is clarified.
 - The DNR shall notify all owners by first class mail regarding the ability to terminate or reduce the length of agreement or any other significant changes in the law.
 - The criteria for termination states that upon request from the landowner, the local governing body (usually the township), and the DNR shall terminate the agreement if one or both of the following conditions are present:
 - The local governing body determines one or more of the following:
 - The quality of the farmland can not be made economically viable,
 - Surrounding conditions create physical obstacles or prohibits essential practices,
 - Significant natural physical changes in the farmland have occurred that are generally irreversible and permanently limit the productivity of the farmland,
 - A court order restricts use of the farmland.
 - The local governing body determines the termination is in the public's interest and one or more of the following conditions are met:
 - The farmland is to be owned, operated and maintained by a public body for public use,
 - The farmland had been zoned for the immediately preceding three years for commercial or industrial use,
 - The farmland is to be owned, operated or maintained by a tax exempt organization and the project will benefit the local community.
 - Release for public interest shall consider the following:
 - The long-term effect of the termination on remaining farms,
 - Other reasonable and prudent site alternatives,
 - Infrastructure changes and costs to local government as a result of developing the farmland.
 - The DNR will review applications for termination to verify the criteria to terminate was met.
 - "Economic viability" and the method for determining economic viability is defined in the law.
 - If the local unit of government denies request to relinquish or terminate an agreement, the owner may appeal to the state. The state will use the same criteria as outlined for local units of government.
 - The local unit may waive its right to make relinquishment determinations. The request will then go directly to the state land use agency.
 - The process and criteria for the purchase of farmland development rights agreement is detailed in the bill. This is a major new section containing detailed language regarding the purchase of development rights.
- MFB Contact:** Ron Nelson, ext. 2043. ■

STATE ISSUE

Animal Industry Act

Legislation sponsored by Rep. Carl Gnodtke (R-Sawyer), is on the Governor's desk awaiting his signature. The bill updates the Animal Industry Act, often referred to as PA 466 of 1988. The purpose of the update is to reflect current management practices and also clarify the Department's authority and role in the testing of cervidae partly as a result of the tuberculosis situation.

The bill further provides that the Department of Agriculture may directly indemnify for the taking of animals in the case of infectious or contagious disease by paying up to \$10,000 each incident. In the past, the Legislature was required to appropriate any and all amounts; this gives the Department of Agriculture the authority to pay and provide money to individuals whose animals have been condemned.

The bill also provides local authorities the option for additional testing requirements for shows and exhibitions for contagious and infectious disease. The bill prohibits the feeding of garbage to swine unless the garbage is rendered. The feeding of manure, including the use of dried poultry manure, which is primarily fed to ruminants, is not excluded.

MFB Position: MFB supports the bill.
MFB Contact: Ron Nelson, ext. 2043. ■

STATE ISSUE

Primary seat belt bills sent to Governor

H.B. 5000, sponsored by Rep. Frank Fitzgerald (R-Grand Ledge) would amend language in the Michigan Motor Vehicle Code and make not wearing a seat belt a primary offense. This would allow police to stop a vehicle under the suspicion that a person might not be wearing their seat belt. Currently a seat belt violation can only be issued if a driver first violated another law of the motor vehicle code.

H.B. 5123, sponsored by Rep. Carl Gnodtke (R-Sawyer) would increase speed limits on Michigan highways. During the passage of this bill an amendment was added that would have made not wearing a seat belt a primary offense. The amendment also repealed the 5 percent limit on the reduction of negligence awards for people involved in an accident when they were not wearing their seat belt.

On the last day of session before summer recess, MFB was successful in removing this amendment from H.B. 5123. Therefore H.B. 5123 as passed by both Houses did not include language addressing seat belt usage.

MFB Position: Farm Bureau policy opposes changing the motor vehicle code and making not wearing a seat belt a primary offense. This would expand current police powers by allowing police to stop vehicles under the suspicion that a person is not wearing a seat belt.

MFB Contact: Howard Kelly, Ext. 2044. ■

STATE ISSUE

Anti-disparagement food bills awaiting House action

H.B. 5451, sponsored by Rep. Michelle McManus (R-Lake Leelanau), is a new section of law that provides for the award of damages for harm caused by false or misleading statement of fact relating to a food product. The bill specifically references "third party" and states that third party is liable for all damages caused by the false or misleading statements of fact.

H.B. 5808, sponsored by Rep. Carl Gnodtke (R-Sawyer), amends the revised Judicature Act of 1961 and contains more detail with the same concept. The bill requires that a person's statement be based on scientific fact and any disparaging comments which result in economic loss to producers can be rewarded by the court in the amount of up to three times the actual economic damage. In addition, it provides that an association may represent the producers that suffered the damages.

Disparaging an agricultural product means to provide information knowing that the information is inadequate and alleging that it is not safe for human consumption and the statements are not based on reasonable and reliable scientific facts.

MFB Position: MFB supports the bills.

MFB Contact: Ron Nelson, ext. 2043. ■

STATE ISSUE

Affirmative action bills introduced

H.B. 4054, sponsored by Rep. Penny Crissman (R-Rochester), would add language to prohibit employers, employment agencies and educational institutions from adjusting test scores, using different cut-off scores or otherwise altering the results of a test based upon the religion, race, color, national origin or sex of the person taking the test.

H.B. 4972, sponsored by Rep. Michelle McManus (R-Lake Leelanau), adds the words "or give preference to" to appropriate sections. Example: An employer, labor organization... shall not discriminate against or give preference to an individual because of religion, race, color, national origin, age, sex, height, weight, or marital status, etc.

H.B. 4163, sponsored by Rep. William Bryant (R-Grosse Pointe Farms), adds the words "genetic makeup" to religion, race, color, national origin, age, sex, height, weight, or marital status.

HJR L, sponsored by Rep. David Jaye (R-Washington Township), basically proposes adding the words "or granting preferential treatment to" in phrases such as: "...either discriminating against or granting preferential treatment to one or more individuals in employment, etc."

MFB Position: Farm Bureau testified in support of H.B. 4054 & H.B. 4972 in the House Judiciary Committee.

MFB Contact: Howard Kelly, ext. 2044. ■

STATE ISSUE

Transportation reform

Sen. Philip Hoffman (R-Horton) has introduced the following transportation reform package:

- SJR V would amend the Michigan Constitution to eliminate the State Transportation Commission. This amendment would be on a statewide ballot question. In effect, it would eliminate a public forum for discussion on state transportation issues before MDOT.
- S.B. 873 would repeal P.A. 51 of 1951. This Act provides for the current distribution of the \$1.4 billion Michigan Transportation Fund. There is no proposal to replace this formula.
- S.B. 874 and S.B. 875 would allow county boards of commissioners to dissolve county road commissions.
- S.B. 876 would allow countywide local gas taxes.

The package is in the Senate Appropriations Committee, but Sen. Hoffman does not have enough votes to move the package at this time. Since the transportation reform package stalled in the Senate Appropriations Committee, Sen. Hoffman tried to replace the House version of the Transportation Budget for Fiscal Year 1996-97 with a 2-year budget.

In addition, Sen. Hoffman tie-barred the transportation budget to S.B. 1011, which would have repealed P.A. 51 after two years. The result would have been a political battle every two years over transportation dollars entirely from the state's general fund. There would be no distribution formula. Sen. Hoffman's transportation budget package was never considered by the full Senate Appropriations Committee. The final bill maintained P.A. 51 and provided local units of government with \$105 million in additional road and critical bridge funds.

MFB Position: Farm Bureau opposed Sen. Hoffman's transportation budget and reform bills.

MFB Contact: Tim Goodrich, ext. 2048. ■

STATE ISSUE

Tourist-oriented directional signs

The Governor has signed H.B. 4770 (P.A. 299 of 1996) which establishes a Tourist-Oriented Directional Sign (TODS) program in Michigan. This program allows tourist-oriented activities in non-urban areas to use highway signs to attract tourists. A "tourist-oriented activity" is defined as a lawful cultural, historical, recreational, educational or commercial activity.

Signs will not be permitted on limited access highways or on roads in villages or incorporated cities. To qualify for sign space, an activity would have to attract at least 2,000 people from outside the immediate area for a tourist activity.

The attraction must also be within 10 miles of the state highway. Within 6 months of the bills enactment, the Michigan Department of Transportation (MDOT) shall develop standardized logos for different types of eligible attractions and enact a yearly application and permitting process.

Michigan's present law prohibits signs on state highways or visible from a state highway unless the sign: 1) is on land zoned commercial/business or industrial and is within 800 feet of the business or commercial operation or; 2) is located on the premise where the business is operated.

MFB Position: MFB supported the measure.

MFB Contact: Tim Goodrich, ext. 2048. ■

STATE ISSUE

Manufacturing Milk Act and the Fluid Milk Act amendments finalized

H.B. 5879, sponsored by Rep. Mike Green (R-Mayville), and H.B. 5880, sponsored by Rep. Allen Lowe (R-Grayling) were signed by the governor on July 2 and assigned P.A. 361 and P.A. 362 respectively. The bills provide additional security to milk producers and gives additional authority to the Michigan Department of Agriculture (MDA) for financial auditing, and details the action to be taken by MDA. The bills would require that producers be notified of the security arrangements at the time of licensing or any changes in security arrangements during the licensed year.

Suspension or revocation of license for failure to provide the appropriate security is also regulated by the Administrative Procedures Act (APA). The bill attempts to give the Department authority to move in a very timely fashion in the event of substantial erosion of the financial security of a milk handler.

MFB Position: MFB supports the bills.

MFB Contact: Ron Nelson, ext. 2043. ■

Capitol Corner

NATIONAL ISSUE

House takes action on agricultural appropriations

The House has passed a \$53.1 billion appropriations bill to fund agriculture programs during FY 1997. This represents a \$10.2 billion cut from the FY 1996 appropriations bill. The bill, as passed restores full funding for transition payments to farmers who sign contracts under the new Farm Bill. Language was added, however, to require farmers to plant a crop in order to receive the transition payments except when land is devoted to conservation or unable to be planted because of weather disasters.

Other provisions of the House passed agricultural appropriations bill include capping the maximum price support of domestic raw sugar at 21.2 cents per pound, reduce spending for the Export Enhancement Program from \$250 million to \$100 million, full funding for the Environmental Quality Incentives Program at \$200 million, \$2 million for the Farmland Protection Program, \$25 million for emergency disaster loans and \$325,000 to be used by Michigan State University and Cornell University for fireblight research.

MFB Contact: Al Almy, ext. 2040. ■

NATIONAL ISSUE

Senate took action on minimum wage bill

The House has passed legislation that would increase the federal minimum wage to \$4.75 on July 1, 1996, and to \$5.15 on Jan. 1, 1997. The bill also creates a 90-day \$4.25 subminimum wage for workers under the age of 20. After passing the minimum wage bill it was combined with a small business tax bill and sent to the Senate. The Senate Finance Committee has approved the combined bill with the minimum wage increase provision.

MFB Position: Farm Bureau policy opposes an increase in the minimum wage.

MFB Contact: Al Almy, ext. 2040. ■

NATIONAL ISSUE

Most-favored-nation trade status to China extended

President Clinton has announced his intention to renew Most-Favored-Nation (MFN) trade status to China. Congress has 60 days from the President's announcement to vote on the MFN renewal.

China has a population of 1.2 billion, about 5 times that of the U.S., and is widely considered the most important growth market for U.S. agriculture in the 21st century. China has been experiencing double digit economic growth, but with five times the number of people as the U.S. and only one-half of the arable land, must rely on imports.

In 1995, U.S. agricultural sales to China totaled \$2.6 billion — more than twice the 1994 level. Industry projections indicate that China will account for 37 percent of future growth in U.S. exports. Total U.S. exports to China were over \$1.2 billion in 1995.

MFB Position: Farm Bureau supports granting MFN status to China.

MFB Contact: Al Almy, ext. 2040. ■

NATIONAL ISSUE

Delaney Amendment action expected soon

The markup of H.R. 1627, The Food Quality Protection Act, by the House Health and Environment Subcommittee is scheduled for after the July 4 recess. We expect consideration by the full Commerce Committee and action on the House floor following the Subcommittee markup. The bill reforms the Delaney Amendment by replacing the zero risk standard with a negligible risk standard, strengthens pesticide benefits consideration, provides national uniformity for food pesticide tolerances and streamlines registration for minor use pesticides.

Additional pressure for Commerce Committee action on H.R. 1627 which has 240 cosponsors has come from the threat of a discharge petition. If signed by 218 Congressmen the discharge petition would bring the bill directly to the House floor, bypassing the Commerce Committee.

MFB Position: Farm Bureau strongly supports H.R. 1627 and the discharge petition.

MFB Contact: Al Almy, ext. 2040. ■

NATIONAL ISSUE

Immigration reform sent to conference committee

A Conference Committee is now meeting to reconcile differences between separate immigration reform bills passed by the House and Senate. Farm Bureau has written to conferees requesting the following:

- Support for Senate language mandating the General Accounting Office to study the H-2A program and determine its future adequacy to meet farm employer's needs for agricultural workers.
- Support for Senate language clarifying the "intent standard" relating to document discrimination. Employers could not be found liable for document abuse by requesting more or different documents which could otherwise be proof of discriminatory intent.
- Support for Senate language requiring that state agencies referring applicants for employment must verify employment eligibility. Employers who rely on such eligibility certification would be deemed in compliance with the law.
- Support for House language providing a 10-day grace period for employers to correct documentation errors on I-9 Forms after notification of the mistake by the Immigration and Naturalization Service (INS) or other enforcement agency.
- Support for House language authorizing the hiring of 500 additional INS investigators for enforcement of employer sanctions.
- Oppose Senate language authorizing the seizure of assets owned by an employer for actions of an employee.

MFB Contact: Al Almy, ext. 2040. ■

NATIONAL ISSUE

Farm Credit Title

During the months of May and June many FmHA borrowers have been told they do not qualify for financing this year due to provisions in the new Farm Bill. The following provisions apply:

- Section 624 establishes a maximum loan indebtedness under the Emergency Loan program of \$500,000. Some borrowers already have some Emergency Loan Program indebtedness, and the loan for this year's farm expenses which was in the pipeline causes them to exceed the statutory limit. They have been notified by USDA that their current loan proposal will not be approved, leaving them without sufficient operating funds.
- Section 648 prohibits USDA from making or

NATIONAL ISSUE

Health care

The House and Senate have passed different versions of H.R. 3103, the Health Coverage Availability and Affordability Act. Included in both bills are provisions to prevent insurance companies from denying coverage to individuals with pre-existing health conditions and from dropping persons when they become ill. Both bills contain portability to allow persons to maintain health insurance coverage when they change jobs and include accelerated death benefits of life insurance policies for the terminally ill.

Both bills increase the self-employed health insurance deduction by different amounts. The House version increases the deduction to 50 percent by 2003. The Senate version increases the deduction to 80 percent by 2006. Both bills expand the deduction to include the cost of long term care insurance.

The House version allows persons who buy high deductible health insurance plans to make tax deductible contributions to medical savings accounts which could be used to pay medical expenses. It also allows small employers to voluntarily form groups to gain more purchasing power for insurance purposes.

The Senate version allows withdrawals from IRAs and 401(k)s for long term care insurance and from IRAs for catastrophic medical expenses.

A Conference Committee is meeting to address differences between the House and Senate versions of the bill.

MFB Position: MFB supports many of the measures contained in both bills.

MFB Contact: Al Almy, ext. 2040. ■

FDA steps up cyclospora testing efforts

The Food and Drug Administration has stepped up efforts to test food for contamination of *cyclospora* — a parasite that has made 1,000 people ill in 11 states. FDA had previously announced that the focus of the investigation had shifted from strawberries to raspberries. However, agency officials said other fruits still may be involved, and told consumers to thoroughly wash all fresh produce prior to consumption.

FDA began using a new, highly-sophisticated

test, known as polymerase chain reaction, to detect cyclospora on fruit. Through these new tests, scientists hope to determine whether a common link is involved.

Scientists previously encountered difficulties in testing for the microbe mainly due to patient recall problems. Cyclospora has a seven-day incubation period — longer than that of other foodborne disease. ■

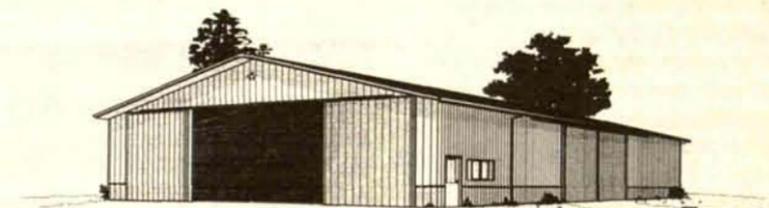


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Since its beginning in 1971, Michigan Farm Radio Network's only objective has been to serve Michigan's farm families. This dedication to serve agriculture is shared by 26 local radio stations in Michigan. Through these stations, Michigan Farm Radio Network provides the latest in market analysis, weather and news to Farm Bureau members daily on the following stations:

Station	City	Frequency	Morning Report	Noon Report
WABJ	Adrian	1490	5:45 am	11:05-12:00 pm
WATZ	Alpena	1450	5:30 am	11:30 am
WTKA	Ann Arbor	1050	6:05 am	12:00-1:00 pm
WLEW	Bad Axe	1340	6:30 am	12:50 pm
WHFB	Benton Harbor	1060		12:15 pm
WKJF	Cadillac	1370	5:45 am	11:10 am
WKYO	Caro	1360	6:15 am	12:10-1:00 pm
WTVB	Coldwater	1590	5:45 am	12:00-1:00 pm
WDOW	Dowagiac	1440	6:05 am	12:15 pm
WGHN AM	Grand Haven	1370	5:45 am	12:15 pm
WGHN FM	Grand Haven	92.1	5:45 am	12:15 pm
WPLB	Greenville	1380	6:15 am	11:50 am
WBCH	Hastings	1220	6:15 am	12:30 pm
WCSR	Hillsdale	1340	6:45 am	12:45 pm
WHTC	Holland	1450		12:15 pm
WKZO	Kalamazoo	590	5:00-6:00 am	12:00-1:00 pm
WPLB FM	Lakeview	106.3	6:15 am	12:15 pm
WOAP	Owosso	1080	7:15 am	12:40 pm
WHAK	Rogers City	960		12:15 pm
WSJ	St. Johns	1580	6:15 am	12:05-1:05 pm
WMLM	St. Louis	1520	6:05 am	12:20 pm
WSGW	Saginaw	790	5:55 am	11:30-12:30 pm
WMIC	Sandusky	660	6:15 am	12:45 pm
WKJC FM	Tawas City	104.7		12:40 pm
WLKM	Three Rivers	1510	5:45 am	12:15 pm
WTCM	Traverse City	580	5:45 am	11:10 am

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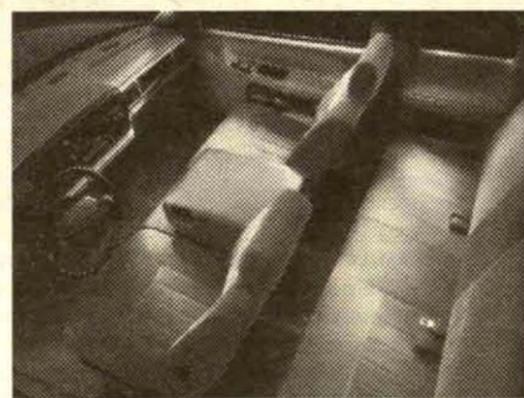


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Market Outlook

by Dr. Jim Hilker,
Department of
Agricultural Econom-
ics, Michigan State
University



Seasonal Commodity Price Trends

Corn	↔ ?
Soybeans	↔ ?
Wheat	↔ ?
Hogs	↔ ↑
Cattle	↔ ↑

Index: ↔ = stable prices; ↑ = higher prices; ↓ = lower prices; TP = topping; BT = bottoming; ? = unsure

which would still be the third highest ever. Using the above supply numbers and middle-of-the-road use numbers would suggest we will have another tight year in front of us, as shown in column 3 of Table 1. If my estimates turn out to be close to correct, prices will be over \$3.00 per bushel all next year. I would also suggest there is more upside price potential than downside price risk.

For those with old crop corn left, you almost cannot make a mistake if you sell it between now and the middle of August. It may go down or may go up, but you will receive a very high price. The new crop decisions are much harder and are complicated by the tough spring much of Michigan has endured.

At this point, I would consider having 15-30 percent of the new crop priced, whether I do it now or had previously locked in some prices. From this point on I would base additional sales on the condition of your corn crop and rallies in the December corn futures. Consider looking very hard for additional pricing opportunities between now and the middle of August. If prices keep escalating, livestock producers will keep liquidating and use could fall off sharply sometime next year.

WHEAT

At first glance the *Wheat Stocks and Planted Acres Reports* were negative, but the price bullish *Corn Stocks Report* seems to have offset much of that. June 1 stocks, which are the ending stocks for the wheat marketing year, were 23 million bushels higher than expected. Planted acres of spring wheat were up 2.5 million acres for last year and expectations. This leaves us with about 200 million more bushels of wheat for this next year, if the last yield report holds up.

These estimates are shown in Table 2, where I attempt to update the June 12 Supply/Demand

Reports with the new information. Check the July 12 release of the USDA supply/demand estimates for comparison. The relative corn/wheat prices we see would indicate that much of the increase in wheat supply will be fed this summer. And while the Kansas wheat was coming in a little better than expected, soft red wheat is having major disease problems.

The bottom line is the wheat situation will be tight for another year; it just may not be quite as tight as previously thought. The futures market is telling us it will not pay for storage as the December and March futures are just above September. This doesn't mean futures will not increase, it is saying, if you want to take the chance, futures will increase. Use a basis contract or an MPC versus elevator storage. Short-term farm storage may pay if you have the right facilities and the docks are high at harvest.

SOYBEANS

The *Soybean Stocks and Acreage Report* were very near expectations. The stocks situation indicates that the June 12 USDA 1995-96 supply/demand estimates were very close and are shown in Table 3. Due to the late plantings, I lowered the expected yield to 36 bushels per acre from the 36.7 trend. The result of that, even considering the increase in acres over last year, is another very tight year and good prices, as shown in column 3 of Table 3.

The over \$7 per bushel prices being offered early in July is an indication that the market is even less optimistic than I am as to the size of the 1996 soybean crop. As with corn, I would hold up pricing more than 15-30 percent of your expected 1996 crop until you are more confident in what you will be producing. While there is some downside price risk, we will not be selling soybeans for low prices any time soon. Consider spreading your remaining old crop sales out over the next month.

CATTLE

The *May Cattle-On-Feed Report* showed placements down again as feed prices remain high and cattle prices remain low. However, production has remained high due to the numbers already on feed and the choice/select spread keeping weights up despite the high corn prices. Year-to-year pro-

duction will likely fall off as we go through the summer, but those feeders have to be placed sometime and the turnover will be faster due to heavier placement weights the longer they are on grass. Look for steer prices to move into the lower \$60s for the summer and fall, but it will take something we haven't seen yet to get it any higher.

Cow slaughter remains high in all regions other than the mountain states where they have grass. This will continue to increase production, but may slow up some this summer. Look for the next cattle-on-feed report and the Mid-year Cattle Inventory report to be released on July 19. It should give us a decent picture of future supply. My guess is that the beef cow herd will be down significantly. All it would take to make the cow-calf operation profitable again would be a normal 1997 corn yield and a 4 percent decrease in the beef cow herd. I don't think anything can pull out the 1996 calf crop, but a good corn crop would sure help.

HOGS

The June 1 *Hogs and Pigs Report* released June 28 was a shocker. As expected the June 95 and March 96 pig crop and inventory numbers were revised downwards due to the actual slaughter numbers by 2-4 percent. The report showed that the inventory was down 4 percent, 3 more than expected. Those kept for breeding were down 5 percent, 2 more than expected. Kept for market was down 3 percent, 2 more than expected, all from year ago numbers.

March-May farrowing were down 8 percent, June-August intentions were down 5 percent, and Sept-Nov intentions were down 1 percent. However, the March-May Pig crop was down only 6 percent as pigs saved per litter was up. Pigs under 60 lbs. were down 5 percent, 60-119 down 3 percent, 120-179 down 1 percent, and over 180 lbs. was down 3 percent. This means higher than expected hog prices to help offset the high feed prices, but it appears that the small producers are still dropping out rapidly.

On June 1, the Michigan breeding herd was 7 percent below the same date in 1995 and market hogs were down 9 percent. While most states were down 5-22 percent, Kansas, Missouri, North Carolina, and Oklahoma were up 13-24 percent. Ohio held its own.

The numbers would indicate that live hog prices will stay high, probably over \$50, for much of the next year, and will be in the upper \$50s for large parts of that time. Consider forward pricing opportunities, but make sure you have a feed source at some maximum level. Check with your feed supplier on maximum price contract, where they buy a call option to protect themselves.

DAIRY SITUATION

by Larry G. Hamm

The basic supply and demand outlook for the U.S. and Michigan dairy industry remains the same as in recent months. High feed prices, uncertain feed supplies and lower production per cow are holding U.S. milk production behind year ago levels. The dairy product markets are unusually tight and milk prices continue to reflect these dairy market fundamentals.

May 1996 milk production in the 22 major dairy states was 1 percent below production in these same states in May 1995. May also was the first month since February 1993 when the production per cow in the 22 major states was less when compared to its year ago level.

The May 1996 average production per cow of 1,477 pounds was 7 pounds below May 1995. The number of cows on the farms in the major dairy states was 7.99 million head down 67,000 head from a year ago. Commercial use of dairy products is currently running approximately equal to a year ago levels. It is hard to meet increased consumer demand when there are no products available on the market.

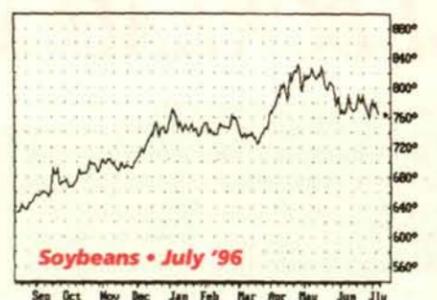
Consequently, the dairy product markets continue their recent strength. The wholesale price of butter on the Chicago Mercantile Exchange continues to skyrocket with the latest price quotes being \$1.50 per pound for Grade AA. Prices for nonfat dry milk continue to be higher as available supplies have been rationed and milk production continues to hold back manufacturing plant schedules.

Activity on the National Cheese Exchange (NCE) in Green Bay, Wisconsin has been extremely brisk. Product sales are running at historically high levels by NCE standard levels. Since Memorial Day, weekly trading on the NCE has averaged 56 carload transactions.

Continued on page 9

Source: Knight Ridder Financial
Source: USDA and Jim Hilker

COMMODITY PRICE TRENDS



COMMODITY SUPPLY/DEMAND BALANCE SHEETS

Table 1 — Corn

(Million acres)	Projected 1994-1995	Projected 1995-1996	Hilker's Proj. 1996-1997
Acres set-aside/diverted	2.4	6.2	
Acres planted	79.2	71.2	79.4
Acres harvested	72.9	65.0	72.1
Bu./harvested acre	138.6	113.5	121.0
Stocks (million bushels)			
Beginning stocks	850	1,558	287
Production	10,103	7,374	8,725
Imports	10	15	13
Total supply	10,963	8,947	9,025
Use:			
Feed and residual	5,535	4,800	4,850
Food/seed & ind. uses	1,693	1,600	1,600
Total domestic	7,228	6,400	6,450
Exports	2,177	2,260	2,050
Total use	9,405	8,660	8,500
Ending stocks	1,558	287	525
Ending stocks, % of use	16.6	3.3	6.2
Regular loan rate	\$1.89	\$1.89	\$1.89
U.S. season average			
Farm price, \$/bu.	\$2.26	\$3.30	\$3.25

Table 2 — Wheat

(Million acres)	Projected 1994-1995	Projected 1995-1996	Hilker's Proj. 1996-1997
Acres set-aside & diverted	5.2	5.2	
Acres planted	70.3	69.2	75.6
Acres harvested	61.8	61.0	63.1
Bu./harvested acre	37.6	35.8	35.7
Stocks (million bushels)			
Beginning stocks	568	507	375
Production	2,321	2,185	2,255
Imports	92	65	85
Total supply	2,981	2,757	2,715
Use:			
Food	852	875	895
Seed	89	100	107
Feed	345	162	300
Total domestic	1,286	1,137	1,302
Exports	1,188	1,245	1,000
Total use	2,474	2,382	2,302
Ending stocks	507	375	413
Ending stocks, % of use	20.5	15.7	17.9
Regular loan rate	\$2.58	\$2.58	\$2.58
U.S. season average			
Farm price, \$/bu.	\$3.45	\$4.50	\$4.50

Table 3 — Soybeans

(Million acres)	Projected 1994-1995	Projected 1995-1996	Hilker's Proj. 1996-1997
Acres planted	61.7	62.6	64.0
Acres harvested	60.9	61.6	62.9
Bu./harvested acre	41.4	34.9	36.0
Stocks (million bushels)			
Beginning stocks	209	335	195
Production	2,517	2,152	2,265
Imports	5	5	5
Total supply	2,731	2,492	2,465
Use:			
Crushings	1,405	1,355	1,365
Exports	838	825	805
Seed, feed & residuals	153	117	120
Total use	2,396	2,297	2,290
Ending stocks	335	195	180
Ending stocks, % of use	14.0	8.5	9.1
Regular loan rate	\$4.92	\$4.92	\$4.97
U.S. season average			
Farm price, \$/bu.	\$5.48	\$6.80	\$6.90

Business Strategies

Farmland values show strong increase

by Steve Hanson and Ralph Hepp,
Department of Agricultural Economics,
Michigan State University

Land values in Michigan showed the strongest increases of the decade last year. The Federal Reserve Bank of Chicago reported the value of "good" farmland increased 8 percent in Michigan during the period from April 1, 1995 to April 1, 1996 based on a survey of agricultural lenders. A survey conducted by the Agricultural Economics Department at Michigan State University found similar results for the same period in a survey of agricultural lenders, farm managers and rural appraisers, and county equalization directors. Table 1 reports the Michigan State survey results for the southern lower peninsula during the spring of 1996.

The value of above average corn-soybean-hay land was \$1,206 per acre, up 8.1 percent from the previous year. The value of below average corn-soybean-hay land was \$818 per acre, up 6.8 percent during the previous year. Sugar beet land had an average value of \$1,659 per acre, an increase of 8.4 percent from the previous year; while irrigated land had a value of \$1,422 per acre, up 7.3 percent during the year. The strong increases are primarily attributed to strong grain prices both domestically and internationally. The new farm program, which provides fixed payments to farmers, may also have impacted land values.

Values are expected to remain strong during the upcoming year. Above and below average corn-soybean-hay land are expected to increase 5.6 percent and 5.1 percent, respectively during the upcoming year. Sugar beet land is expected to increase 4.5 percent during the next year; while irrigated land is expected to show a gain of 5.9 percent during the year.

Cash Rents

The average cash rent for above average corn-soybean-hay land was \$73 per acre; while below average corn-soybean-hay land rented for \$47 per acre. Sugar beet land had an average rent of \$117 per acre and irrigated land rented for \$129 per acre.

Value-to-rent ratios are calculated by dividing the land value by the rent level and averaging across each land type. The average value-to-rent ratio for above and below average corn-soybean-hay land was 17 and 19. Sugar beet land had an average value-to-rent ratio of 14 and irrigated land had an average value-to-rent ratio of 11.

The value-to-rent ratio is a function of the future cash flow the land is expected to generate. Higher expected future cash flows are capitalized in the land's value today, increasing the land's value relative to the current rent level. In other words, higher expected future cash flows translate into higher value-to-rent ratios.

The high value-to-rent ratios for corn-soybean-hay land relative to sugar beet and irrigated land suggest four possibilities:

- the cash flows from the corn-soybean-hay land are anticipated to grow at a faster rate than the cash flows from sugar beet and irrigated land;
- the corn-soybean-hay land may be switched to

- alternative agriculture uses with higher than expected cash flows, e.g., sugar beets;
- the land is expected to be switched to non-farm uses in the future with higher expected cash flows than are available from corn-soybean-hay production; and
- the market views the future cash flows from corn-soybean-hay production to be less risky than the cash flows from sugar beet and irrigated land and is therefore willing to pay a higher price for the land.

Factors Impacting Land Values

Interest rates declined around 1 percent for farm real estate loans during the year to around 8.7 percent in the spring of 1996. The survey respondents generally felt the decline in interest rates has had little impact on land values, although some respondents felt the lower interest rates have increased the amount of land transactions.

Most respondents felt that higher commodity prices have significantly impacted land prices and cash rents. A few respondents felt the higher grain prices have caused a "good times" feeling agriculture, and compared the current increases in land prices to those of the 1970s when land prices increased rapidly as a result of increases in crop prices during that time period. Others, however, felt that farmers are being more cautious than in the 1970s focusing more on strengthening their financial positions before making capital purchases.

A strong theme continues to exist related to non-agricultural related uses of farmland. Purchase of agricultural land for residential and/or recreation land uses is significant in many areas and is exerting upward pressure on land prices. The strong Michi-

gan economy is putting upward pressure on the demand for land in residential and commercial uses in the southern part of the state; while recreational uses for land are strong in the upper peninsula and northern lower peninsula.

Development pressure appears to be increasing rapidly and extending further into rural areas along the urban fringe in many areas. Many areas are seeing farmland being purchased and then split into 1 to 10 acre plots for homesite development. It is becoming more common for non farm investors to purchase land for future speculative development purposes and then rent the land to farms in the short run. The general feeling is that land values for agricultural use have increased modestly in recent years, but the rate of change in prices has accelerated due to the strong general economy and improved return to crop production.

Land Value Increases in the 1990s

Land values in Michigan have shown steady growth throughout the 1990s. Table 2 shows the percentage change in land values, by land type, for the period 1991-96 in the southern lower peninsula. Land values for each type of land have shown increases each year during the period. Low quality corn-soybean-hay land increased at a simple average rate of 3.4 percent during the period. High quality corn-soybean-hay land and irrigated land rose at simple average rates of 4.4 percent and 3.8 percent, respectively during the period. Sugar beet land showed the most volatility in terms of rate of increase, but had a simple average rate of growth of a strong 5.6 percent during the 6 year period. The rate of increase during the last year is about twice the rate of previous years. ■

Table 1 — Survey 1996 Results for Southern Lower Peninsula

Land Type	Average Value	Percentage Change last 12 Months	Expected Change next 12 Months	Average Value/Rent Ratio	Average Cash Rent
Corn-S.B.-Hay (above avg.)	\$1,206	+8.1%	+5.6	17	\$73
Corn-S.B.-Hay (below avg.)	818	+6.8	+5.1	19	47
Sugar Beet	1,659	+8.4	+4.5	14	117
Irrigated	1,422	+7.3	+5.9	11	129

Note: Average value-to-rent ratios were calculated using only the questionnaires with completed responses to both the average value and average rent per acre.

Table 2
Percentage Change in Land Value from 1991-96 in the Southern Lower Peninsula

Year	Corn-S.B.-Hay		Sugar Beet	Irrigated
	Below	Above		
1991	3.0%	5.0%	9.0%	—
1992	1.6	2.5	3.0	3.4%
1993	1.4	2.0	1.9	3.6
1994	4.1	4.6	4.8	5.4
1995	3.3	4.3	6.2	2.8
1996	6.8	8.1	8.4	7.3

Presidential candidate Bob Dole named "Friend of Agriculture"

Continued from front page
continued work on behalf of regulatory reform. Laurie said Dole's history of supporting the agricultural industry speaks for itself. "Whether it was the 1995 farm bill, agricultural trade issues, amendments to the Clean Water Act, regulatory reform or private property rights — in all of these cases — Sen. Bob Dole has led the charge for agriculture."

In expressing appreciation for the endorsement, Dole said that trade continues to be a high priority and that proponents of trade embargoes

shouldn't forget the lessons learned from the Carter-era embargo. "We lost a lot of our market share," Dole said. "We need to be aggressive in developing trade. Given a level playing field our producers can compete with anybody," he said. Dole said that Most Favored Nation trading status for China will provide increased farm income and also allow the U.S., over the long run, to have more influence with the Chinese people. He also criticized the continuing trade barriers to the Japanese market.

"Excess regulations cost the average American

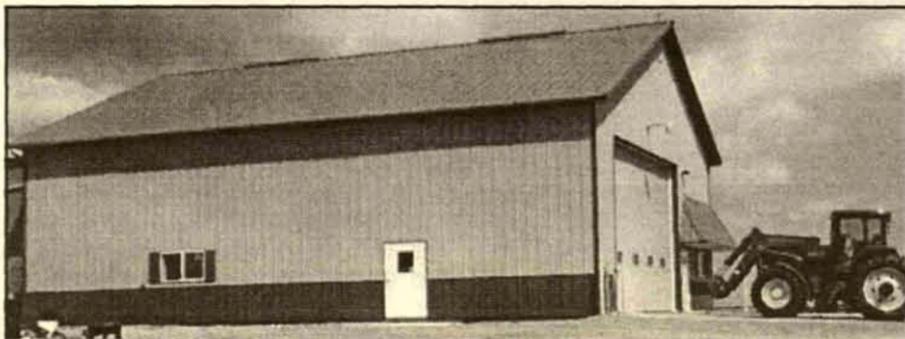
family about \$6,600 per year," said Dole, in promising regulatory reform. "It cost farmers a lot more because they're dealing with it directly every day."

I understand that when it comes to safety and health there are certain things that the federal government has a role to play, but we need a little common sense," he said.

The outdated Delaney Clause would also receive immediate attention in a Dole administration, he told the audience, noting that a zero-risk tolerance was unrealistic with today's sophisticated test-

ing methods. "When it (Delaney) was passed in 1962 it might have been a good idea, but now it needs to be changed to negligible risk," Dole said.

Dole also pledged that a cut in the tax rate on capital gains tax rate will be part of his economic package, along with a reduction in the estate tax. "It seems to us that it's not fair to work all your life, say 50 years on a farm, and when you pass away your heirs have to sell the property to pay the estate tax," he said. ■



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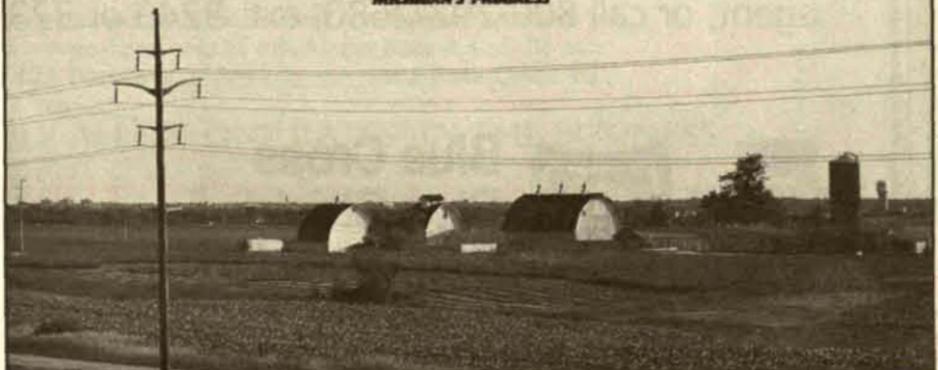
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Weed Strategies

Dr. Jim Kells,
Department of
Crop and Soil
Sciences, Michigan
State University



With the heavy rains across most of Michigan, many growers and custom applicators will be faced with weedy corn fields where the corn is past the application window for 2,4-D or Banvel/Clarity.

This, of course, is not an ideal situation, but some options still exist. If the weed population is low to moderate, cultivation may be the most economical option. With high weed populations, cultivation may also be needed following herbicide application to control the weeds that the herbicide misses.

With herbicide use, there are two strategies that can be followed: (1) broadcast application and (2) directed application.

Broadcast applications

Several postemergence corn herbicides can be applied to corn over 8-inches tall. Table 1 summarizes maximum corn heights for herbicides that can be used on larger corn.

Table 1 — Maximum corn stage for selected herbicides

Herbicide	Maximum Corn Stage
Accent	24 inches or 6-collar
Beacon	20 inches
Exceed	24 inches
Permit	canopy closure
Buctril	before tassel emergence
Resource	10-collar
Stinger	24 inches
Basagran	no limit
Atrazine	12 inches
Laddok	12 inches
Buctril/Atrazine	12 inches

Late season weed control in corn

Numerous tank-mix combinations are labeled as well. Maximum corn heights and additives for many of these tank mixes are listed on Table II (page 66) of the *MSU Weed Control Guide for Field Crops, E-434*.

Since the guide was published, DuPont has received a supplemental label for Accent + Exceed for application up to 24-inch corn (or 6-collars). A revised Exceed label was also approved in May which describes several tank mixes with Exceed. Tank mixes of Exceed plus Banvel/Clarity (1/4-1/2 pt/A) plus surfactant may be broadcast up to 12-inch corn.

In addition, if Banvel/Clarity is used at 1/2 pt/A (2 fl. oz/A), crop oil concentrate can be used as the additive.

Selecting the Best Strategy

The first step in deciding how to handle a specific situation is to assess the weed species and size along with the crop stage. Then identify herbicides or tank-mixes that will control the weeds present at the time of spraying. Table IH, page 65 of the *Weed Control Guide* should be helpful in this regard.

Remember, if you won't be able to get the field sprayed for several days, the weeds will be much bigger when they are treated. Weed height is critical with postemergence herbicides. For example, Exceed alone will control large (up to 12 inch) common ragweed but will only control lambsquarters when small. For larger lambsquarters, a tank mix-herbicide such as Banvel/Clarity or Buctril is needed.

Consider which weed species are the most serious problems and target those species. In most cases you will be better off if you focus on the worst weeds rather than trying to do everything with one treatment.

If grasses are a target species, Accent will need to be part of the herbicide program. If the dominant weed in the field is large common lambsquarters, Buctril should be part of the strategy.

Remember that all of the herbicide options have weaknesses. Buctril is only fair on pigweed. Exceed will not consistently control lambsquarters over 2 inches. Permit is ineffective on lambsquarters and is only fair on smartweed and poor on nightshade. Beacon is only fair on lambsquarters. Therefore, tank mixes or premixes will often be needed

for multi-species infestations.

Also consider corn stage and risk of injury. Some herbicides have little injury risk and can be applied over a wide size range, such as Basagran, Buctril, and Permit. For others such as Basis, Banvel/Clarity, and 2,4-D, corn tolerance decreases as corn size increases. In general, injury from systemic herbicides is of greater concern than injury from contact (burn) type herbicides.

Environment also plays a major role in injury risk. We have seen more injury from 2,4-D and Banvel/Clarity in our research trials this year than in

Continued on page 9

Insecticide-herbicide interactions

With high numbers of European Corn Borer this year, it is likely that many corn fields will need a foliar-applied insecticide for control. There are several insecticide options available including the organophosphate (O.P.) insecticides Lorsban, Dyfonate, Counter, and Diazinon.

Organophosphate insecticides can interact with certain sulfonylurea herbicides to cause severe crop injury. To avoid this problem, there are two options:

- separate the insecticide and herbicide application by a minimum number of days or
- use a non-organophosphate insecticide for European Corn Borer control. The following table summarizes the required time intervals between organophosphate insecticide and herbicide application.

Note: These restrictions apply to all conventional and IT corn. There are no restrictions regarding this insecticide/herbicide interaction for IR/IMR corn.

Herbicide application timing

Herbicide	Minimum number of days:	
	before O.P. insecticide	after O.P. insecticide
Accent	3	7
Basis	3	7
Beacon	7	10
Exceed	7	10
Scorpion III	10*	10*

*MSU recommendation

Use caution with post herbicides

With temperatures reaching the 90s, caution is advised when spraying postemergence herbicides. With higher temperatures, herbicide absorption will occur rapidly and plants under heat stress may be less able to break down the herbicide.

High temperatures combined with adequate soil moisture will result in very high herbicide activity on both the weeds and crop. In addition, the cool, cloudy weather causes crops to develop thin cuticles, which are very susceptible to injury from foliar-applied herbicides.

High temperatures also greatly increase risk of volatilization of Banvel, 2,4-D ester and Clarity. In some cases, it may be best to either switch to less risky herbicides or delay treatment until temperatures decline. If herbicides are applied, risk of crop injury may be reduced by spraying in early evening (after 7 p.m.).

The following are suggestions for herbicide treatment under current conditions:

Corn Herbicides

- Banvel, Clarity, 2,4-D, Scorpion III — Do not use under current conditions.
- Buctril — Expect significant leaf burn on corn. Consider waiting for cooler weather or spray after 7 p.m. after temperature is below 90°F.
- Accent, Beacon, Exceed, Permit — Minimal risk. Do not tank mix with 2,4-D, Banvel, or Buctril.
- Atrazine, Basagran — Okay to spray.

Soybean Herbicides

- Poast, Poast Plus, Assure II, Fusion, Fusilade DX, Option II, Select, Basagran, Reflex, Pursuit, Scepter — Okay to spray.
- Pinnacle, Classic — Avoid spraying until temperature is back below 90°F.
- Blazer, Cobra, Galaxy, Storm, Flexstar — Spray after 7 p.m. after temperature is below 90°F.
- Resource — Apply with NIS; apply after 7 p.m.

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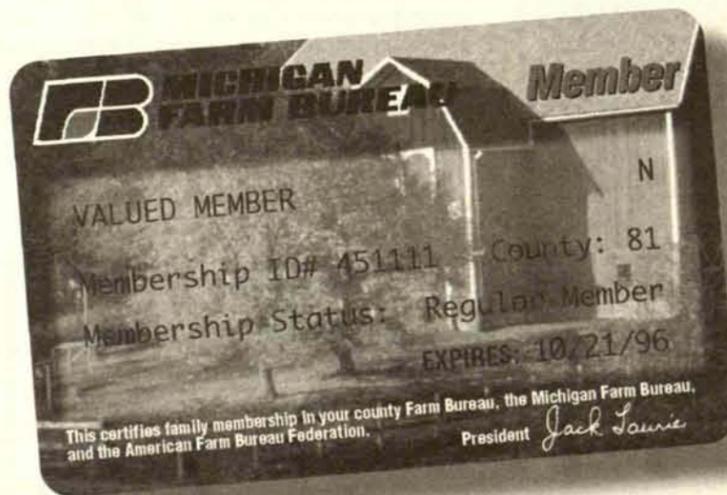
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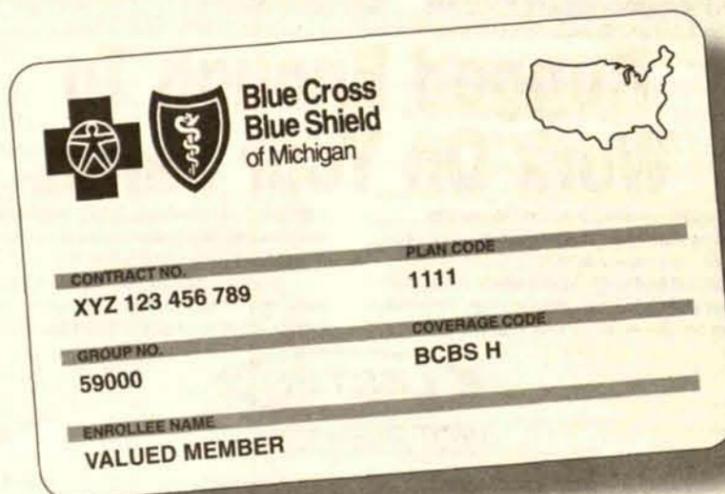
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Late season weed control in corn

Continued from page 8

most prior seasons. The cool, cloudy weather has resulted in plants with thin cuticles that rapidly absorb herbicides. This is not the time to take chances with "hot" herbicide combinations or additives. I suggest staying near the lower end of the rate range with systemic herbicides and avoiding additives that "heat up" the treatment.

Common Situations

The following are some common scenarios in Michigan along with examples of possible herbicide options. This is not intended as a comprehensive list.

Situation 1

Broadleaf weeds (several species including pigweed and lambsquarters)

No triazine resistance — Atrazine can be used

Corn 10-12 inches

Herbicide Options:

- Laddok
- Buctril + Atrazine

Situation 2

Broadleaf weeds (several species including pigweed and lambsquarters)

No atrazine can be used

Corn 10-12 inches

Herbicide Options:

- Exceed + Buctril (1/2-1 pt/A)
- Exceed + Banvel (2-4 fl. oz/A)
- Permit + Buctril (1/2-1 pt/A)
- Permit + Banvel (4 fl. oz./A)

Situation 3

Broadleaf weeds (several species including pigweed and lambsquarters)

Annual grasses (no crabgrass present)

No triazine resistance — Atrazine can be used

Corn 10-12 inches

Herbicide Options:

- Accent + Buctril
- Accent + Atrazine
- Accent + Buctril + Atrazine
- Accent + Exceed + Banvel (2 fl. oz/A)

Other Questions

Q. Is there a problem with tank-mixing sulfonylureas and "overloading" the plant?

A. Corn tolerance to sulfonylureas is related to the plant's ability to rapidly detoxify the herbicide. If the plant is exposed to more herbicide than it can detoxify, it will be injured. Organophosphate insecticides such as Counter reduce the ability of the corn to detoxify sulfonylurea herbicides, thus the interaction that causes corn injury. Corn plants under environmental stress will also be less able to detoxify herbicides. In general, labeled tank mixes of sulfonylureas should not pose a significant risk of corn injury provided the plants are actively growing and not exposed to organophosphate insecticides.

Q. My preemergence herbicide program has worked well up to now but weeds are starting to break through. What, if anything, should I do?

A. In general, weeds that emerge four or more weeks after corn do not impact yield, but may still produce seed. However, with the slow corn growth this year, the corn canopy will form later. This means that late emerging weeds may be more competitive than usual.

Where small weed seedlings have emerged late in corn, cultivation is the best control option. A timely cultivation will control the weeds between the corn rows and soil thrown into the rows will bury many of the small seedlings in the row.

Directed Application

Drop nozzles are not popular for numerous reasons and should be viewed as a "last chance" approach to weed control. However, there are situations for which drop nozzle application is the only option. Several herbicides can be applied with drop nozzles, the most common of which are 2,4-D, Banvel, Evik, Lorox, and Gramoxone Extra.

With 2,4-D and Banvel, directed applications should be used when corn exceeds 8 inches in height (as it stands in the field). The spray should be directed to avoid exposure of the corn, especially the whorl. The spectrum of weeds controlled will be the same as with broadcast applications.

Evik and Lorox/Linex must always be applied as a directed treatment. It is very important to avoid exposure of the whorl to the spray. Both are effective on annual broadleaf weeds, however Evik has greater activity on grasses. Both Evik and Lorox/Linex will provide some soil activity, however, they should be used for their foliar activity (burndown) of emerged weeds. Refer to the Evik label for rotation crop restrictions.

Gramoxone Extra is labeled and recommended for postemergence directed application in corn. Since any leaves exposed to the spray will be killed, extreme care must be taken to minimize exposure of the corn leaves. If the lower leaves are exposed to the spray, they will be killed but the corn will recover.

Listed below are some general guidelines for directed postemergence application of 2,4-D, Banvel, Evik, Lorox/Linex, or Gramoxone Extra.

- Direct the spray so only the lowest two or three corn leaves are exposed. The spray pattern should cover the entire area between the rows to the base of the corn plant. Double outlet wide angle (150°) fan nozzles or two nozzles mounted on a double swivel are the best choices to deliver the desired spray pattern.
- Drop pipes should be used that are rigid, although some flexibility may be desirable to avoid breaking. The pipes should remain rigid and should not "flop around" when being used. The drop pipes should be supported with a spring mechanism to avoid breaking and to insure the spray pattern is delivered where it is wanted. Sprayers designed with positive ground contact provide the most accurate nozzle height control. Operate the sprayer slow enough to prevent the boom from bouncing.
- Applications should be made using a minimum of 20 gal/A of spray volume and a spray pressure of no more than 20 psi (to avoid fine spray droplets and "bounce back").
- For directed applications to be effective, the weeds must be much smaller than the corn. The weeds must be small enough to allow adequate coverage without excessive exposure of the corn leaves to the spray.
- Refer to the herbicide labels and *Extension Bulletin E-434*, page 41, for additional details. ■

Market Outlook

Continued from page 6

Equally surprising is that during all of this active NCE trading, the wholesale price of cheese has changed by less than \$.01 per pound. As butter and nonfat dry milk powders continue to increase, the rates return from processing butter-powder and cheese appear to becoming closer together.

Below year ago levels of production, combined with dramatically increasing butter and powder prices, mean that farm level milk prices will continue to rise. The June Basic Formula Price (BFP) will likely top \$14.00 per hundredweight (cwt.).

The oppressive heat of July and August 1995 was partially responsible for eliminating milk production and this year's spring flush. Breeding cycles were altered to where above normal number of cows are likely to be freshening from mid-July through August 1996. Given last year's lower production in July and August, combined with a likely increase in milk production due to higher than normal calving trends this year, will likely result in milk production increases in July-August 1996 higher than those seen in previous years.

Reports of higher than year ago level productions will not erase the fundamental supply and demand picture for dairy. Milk prices will continue to rise over the rest of the summer.

EGGS

by Henry Larzelere

Egg prices at the end of June were about 12 cents a dozen above a year ago. Feed ingredient prices in June averaged about 14 cents per dozen eggs above last year's level.

Wholesale egg prices in New York for Grade A large white eggs in cartons are likely to average in the upper 80s during the July, August and September quarter. Prices in the October, November and December quarter will probably ease downward to the mid 80s.

The number of layers on farms on June 1 was up 1 percent from June 1, 1995. Egg production in May was up 2 percent from a year ago. These modest increases are likely to continue because there have been increases in the egg-type chick hatch in the last 7 months up over the corresponding month a year earlier. Layer-type eggs in incubators on June 1 were up 4 percent from last year.

The rate of slaughter of spent hens has also been running less than a year earlier. The demand side is continuing strong with the Commercial Egg Movement sharing percentage-wise more eggs moving into retail channels than are indicated as produced and sold to wholesale dealers.

This situation seems to offset the expected higher egg production with the fairly high current egg prices. However, they are not likely to stimulate an excessive egg-type chick hatch because feed ingredient costs are still uncertain with the current growing conditions. ■

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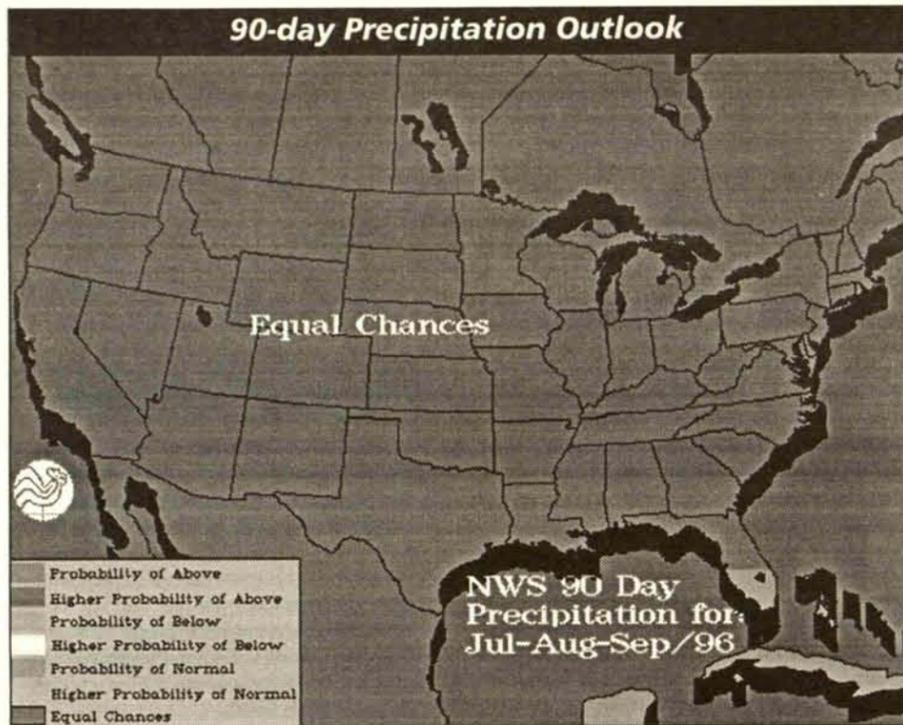
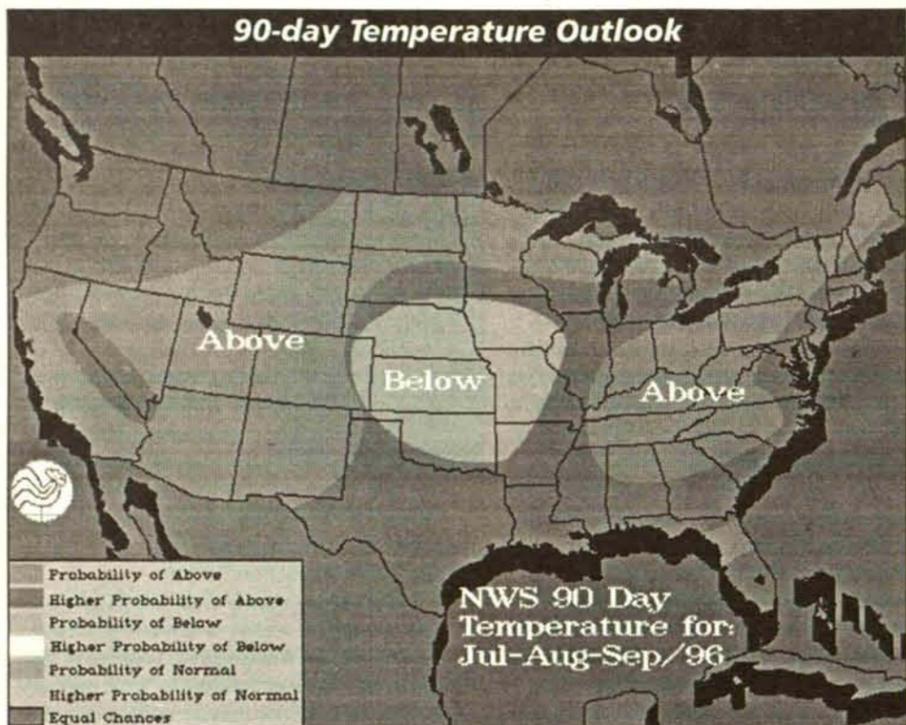
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Weather Outlook

by Dr. Jeff Andresen, agricultural meteorologist, Department of Geography, Michigan State University



The major weather story of this season continues to be untimely and abnormally heavy rain across many sections of Lower Michigan. The heavy rain and earlier cool soil temperatures

have combined to prevent spring planting across large sections of the Saginaw Valley, the Thumb, and extreme southwestern Lower Michigan. Seasonal rainfall totals (since April 1) have reached 15-20 inches in many southern and central locations, more than 200 percent of normal precipitation for the period. Total annual precipitation for these areas is normally on the order of 30-35 inches. Summer-like weather late in the month helped drive mean temperatures into the above normal category for June, the first warmer than normal month since the past winter.

A shift of the upper air steering current to a ridging pattern over the central U.S. has recently led to drier and much warmer weather. Medium-range computer guidance suggests that the ridge will break down over the next couple of weeks, resulting in a weak northwesterly flow pattern across Michigan and a return to cooler temperatures. Precipitation with this type of pattern should remain at normal to below normal levels. The National Weather Service long lead outlook for July calls for near equal odds of

below-, near-, and above-normal temperatures and precipitation. More importantly, the outlook calls for greater than normal odds of above normal temperatures for the late summer months. Odds for precipitation are equal for all three scenarios.

Sugar consumption expected up

Americans this year are expected to consume 363,000 tons more sugar than last year, bringing the total to 9.7 million tons, according to the Agriculture Department.

USDA said U.S. sugar production is expected to total 7.13 million tons, 3 percent less than in the 12 months that ended last Sept. 30. USDA attributed the increase in sugar consumption partially to the popularity of low-fat foods that have a higher sugar content.

Michigan Weather Summary

6/1/96-6/30/96	Temp.		Growing Degree Days		Precip.	
	Obs. mean	Dev. from normal	Actual	Normal	Actual (inch)	Normal (inch)
Houghton	61.9	2.5	488	617	5.17	3.61
Marquette	62.9	3.6	535	617	3.93	3.61
Escanaba	60.5	-0.2	441	471	1.07	3.26
Sault Ste. Marie	60.5	1.9	459	471	3.33	3.26
Lake City	63.5	-0.1	617	717	4.48	3.03
Pellston	63.6	2.5	613	717	1.31	3.03
Traverse City	65.2	1.3	708	717	4.78	3.03
Alpena	62.9	0.8	572	681	2.33	2.90
Houghton Lake	64.4	0.7	650	681	5.80	2.90
Muskegon	65.1	-0.6	719	821	4.38	2.94
Vestaburg	66.0	-1.2	760	875	7.80	3.36
Bad Axe	65.0	-0.4	656	870	4.99	3.08
Saginaw	68.1	1.1	845	870	6.52	3.08
Grand Rapids	68.3	1.2	870	980	6.33	3.55
South Bend	69.4	1.0	1004	980	6.10	3.55
Coldwater	69.0	1.0	906	967	5.12	3.57
Lansing	68.1	1.0	885	967	6.05	3.57
Detroit	71.0	3.3	1014	951	2.31	3.36
Flint	68.9	2.6	891	951	3.90	3.36
Toledo	71.3	2.5	1076	951	4.90	3.36

Observed totals accumulated from April 1. Normals are based on district averages.

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Breakfast: Beyond bacon and eggs

The traditional American breakfast of two eggs over easy, fried bacon, hash browns, toast with butter and a glass of whole milk is not so traditional any more. It has more than half the cholesterol and a large portion of saturated fat recommended for the entire day.

We've grown conscious of the need to reduce the amount of fat in our diets, at breakfast as well as other meals. The reason that most people give for shunning traditional breakfasts — or not eating breakfast at all — has little to do with fat, though. "The main reason people say they don't eat breakfast is, I just don't have time," says Karen Calabro, a registered dietitian with The University of Texas School of Nursing and health promotion coordinator with UT Health Services. She counsels clients to make an effort to take an extra 15 minutes in the morning and eat breakfast for some very compelling reasons.

If you skip breakfast, the amount of time between your evening meal and lunch the next day is about 15 hours. "That's too long for the body," Calabro says. "You need to break the fast." Breakfast replenishes blood glucose levels, the brain's main energy source, and helps counter moodiness and fatigue in the morning. It improves mental and physical performance, Calabro says, and makes you less prone to splurge at lunch or dinner with a fattier meal. If you're seeking to lose weight you should not skip breakfast.

Foods such as cereal, bagels and fruit offer a perfect opportunity to get the complex carbohy-

drates, fiber, vitamins and minerals you need in your diet. "Fruits contain fiber, and fiber is usually rich in vitamins and minerals and low in fat," she says. "This can lower your risk of some cancers, prevent diverticulitis, decrease constipation and it may help lower cholesterol."

Studies have shown that breakfast also improves your chances for longevity. Eating breakfast every day or almost every day is one of the seven basic health practices that have been shown to reduce mortality and disability in employee worksite health programs. People who follow six or more of the seven basic health practices may outlive those who don't by up to 11 years.

There are no "good" foods or "bad" foods, says Calabro. If you have no known heart disease or other risk factors such as hypertension, obesity, or high blood cholesterol, eggs are a suitable and very popular breakfast food, but keep in mind the American Heart Association guidelines recommend eating no more than three to four whole eggs a week. You can have as many egg whites as you want—the cholesterol is in the yolk. An average-sized whole egg contains 5 grams of fat, two of which are saturated fat, and 213 mg cholesterol (current guidelines recommend eating no more than 300 mg of cholesterol daily). Eggs are a good source of protein, but frying them in butter or oil hikes the saturated fat potential, so prepare them in ways that do not add fat.

Busy people can obtain a quick, healthful, low-fat breakfast with hot or cold cereal, skim milk and fruit. For some, though, even cereal takes too much

time. Try baking a batch of muffins or biscuits on the weekend, freezing them in plastic bags, then popping one or two into the oven or microwave on busy weekdays for an on-the-run breakfast. Eat them with 8 ounces of skim milk or nonfat yogurt and fruit for a balanced meal. Baking your own is preferable, as many store-bought muffins are high in fat and sugar.

If you balk at breakfast, variety may help keep you more interested in morning meals. *What's for Breakfast?* (Appletree Press, Inc., Mankato, MN, 1994) by Houston dietitians Donna Roy and Kathleen Flores offers a number of recipes and menus for quick, low-fat healthful breakfasts, including such non-traditional choices as breakfast lasagna, baked potatoes and chicken soup. To diminish your urge to splurge later in the day, the authors recommend breakfast with a "pro-carb connection," which means eating at least 15 grams of protein and 40 grams of carbohydrate.

TOP OF THE MORNING TIPS

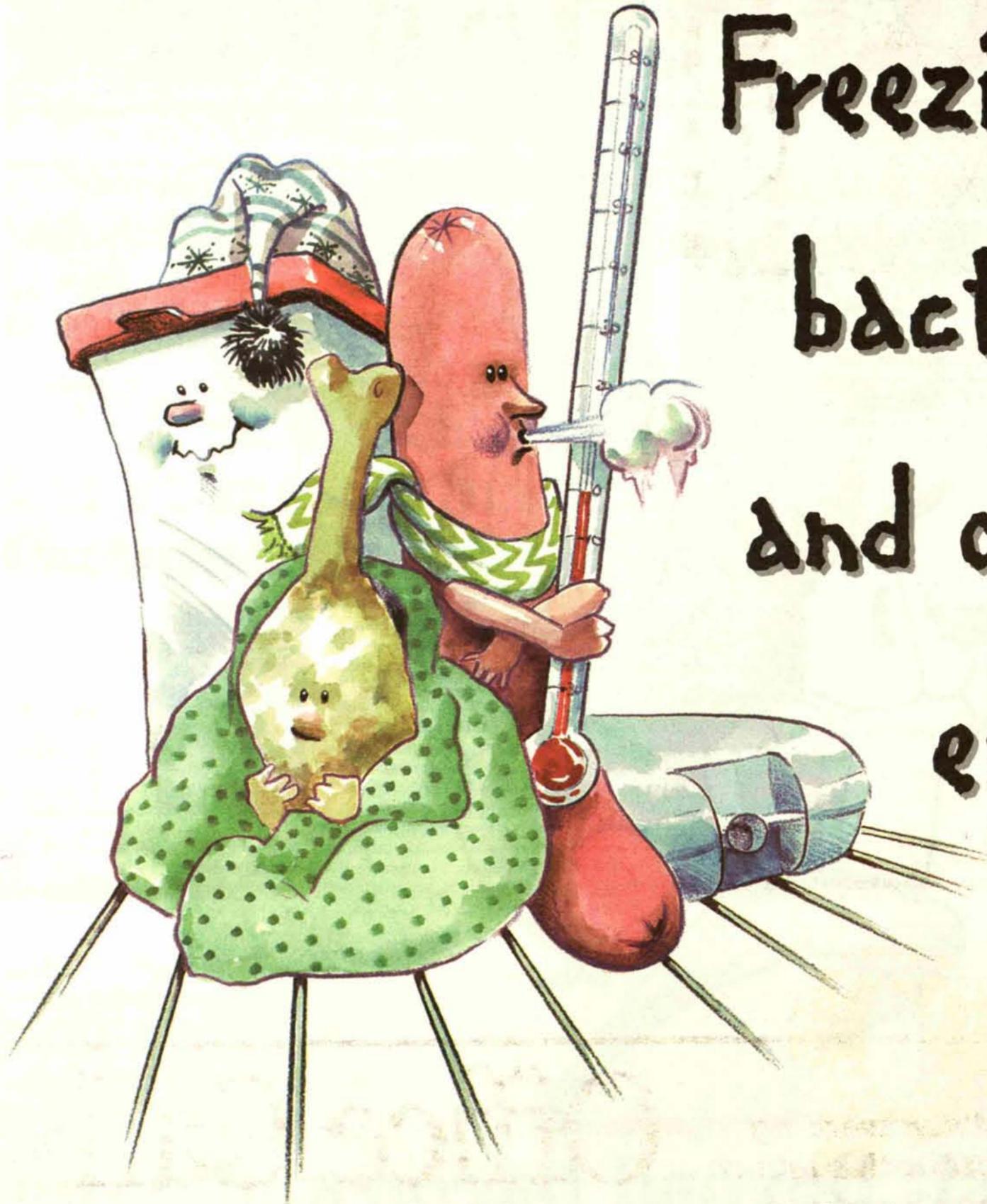
- Hot and cold cereals are excellent choices for breakfast because they contain fiber, vitamins and minerals. Some cereals are higher in fat and sodium than others. Check the labeling on the box. Ideally, one serving of cereal should contain 120 calories or less and have 3 or more grams of fiber, at least 25 percent of the recommended daily intake for iron, and no more than 3 grams of fat and 180 mg or less of sodium. If your favorite brand doesn't meet these criteria, try mixing it with a cereal that does.

- Use skim milk to lower your overall fat intake. If that seems too skimpy at first, try 2% milk for a couple of weeks, then 1% for a while, and then skim milk.
- To lower sugar content, instead of prepared fruit yogurt, mix fresh fruit with plain nonfat or low-fat yogurt.
- When trying to lose weight, eat whole fruit rather than drinking juice. You'll feel like you've eaten more.

PRO-CARB CONNECTIONS

- These sample menus from *What's for Breakfast?* Include at least 15 grams of protein and 40 grams of carbohydrates to tide you over until lunch.
- Two tablespoons light cream cheese and 1 thin slice lean ham (1 oz.) on a toasted whole-grain bagel, fresh peach, and 8 ounces skim milk. 60 g carbohydrate, 23 g protein, 8 g fat, 402 calories.
 - A toasted waffle spread with 1 tablespoon peanut butter and 2 teaspoons sugar-free jam or jelly. Top with ½ sliced banana and eat with ½ honeydew melon chunks and skim milk. 58 g carbohydrate, 16 g protein, 12 g fat, 385 calories.
 - One slice whole-wheat toast topped with 3 tablespoons warm mashed pinto beans sprinkled with 1 tablespoon shredded light cheddar cheese. Broil for 2 to 3 minutes. Garnish with chopped lettuce, tomato and salsa. Accompany with an orange and skim milk. 52 g carbohydrate, 17 g protein, 3 g fat, 300 calories.

Reprinted with permission from the University of Texas Health Letter, March 1996



Freezing out bacteria and other enemies

Okay, so you know your freezer makes ice cubes and keeps a ready ice cream supply. But are you up to speed on how to make sure your frozen food is safe from bacteria that can spoil its quality or make you sick? And do you know how to prevent problems such as freezer burn? Take this quiz to see if you know what really goes on behind closed doors.

True or False?

- Freezing kills any bacteria that food may contain.
- The temperature inside the freezer doesn't matter so long as the food doesn't melt.
- It's safe to eat food that has freezer burn.
- Defrosted food should not be frozen again.
- It's not a good idea to crowd food in the freezer. It works best if there's a lot of room between items so the cold air can circulate.
- The quality of meat deteriorates more quickly than the quality of other frozen foods.
- It doesn't matter whether or not you use containers specifically designed for the freezer.

1. **False.** Freezing slows or stops the growth of most bacteria but doesn't kill them. Some bacteria continue to grow even at very cold temperatures. After defrosting, cook frozen food as though it's not already frozen when you store it will take too long to freeze. In the process, large ice crystals will form, which will damage the food's texture and cause the loss of water-soluble nutrients, namely vitamin C and the B vitamins. The crystals trap the nutrients which are lost as leakage when the food is defrosted.

2. **False.** Keep the freezer no warmer than 0 degrees Fahrenheit. Any warmer than that, and food that's not already frozen when you store it will take too long to freeze. But the food is not unsafe to eat in the freezer. Freezer burn, which is dehydration that occurs when an item is exposed to air or freezer spots of freezer burn, or camouflage it by combining the affected food with other ingredients in, say, soups or stews.

3. **True.** Granted, the color, flavor and texture of food may suffer from freezer burn, which is dehydration that occurs when an item is exposed to air or freezer spots of freezer burn, or camouflage it by combining the affected food with other ingredients in, say, soups or stews.

4. **False.** It is perfectly safe to refreeze food that has been defrosted in the refrigerator, provided you do it immediately after defrosting to minimize spoilage.

5. **False.** A freezer works most efficiently when full because all the foods have an insulating effect on each other. In fact, it's not a bad idea to fill space in an almost empty freezer with crumpled newspaper or paper bags. This trick also works when a power outage threatens your frozen foods. Quickly pack the freezer with paper, and the food inside should stay frozen for 24 hours.

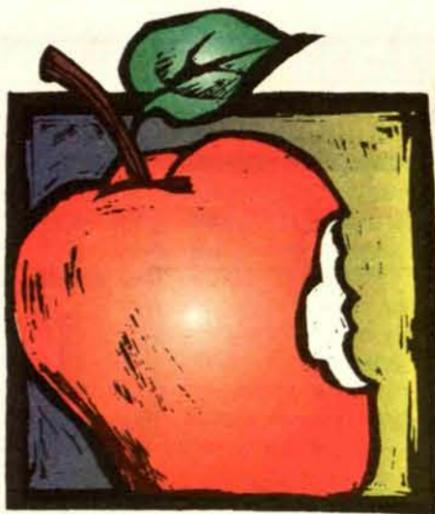
6. **False.** Meat does not necessarily lose quality more quickly than other frozen foods. Processed meats like bacon and hot dogs will keep only for a month or so, and small cuts and poultry parts will keep on the order of 3 to 6 months. But big cuts of meat, such as roasts and whole chickens, will remain top-quality for up to a year if wrapped properly. Foods like bread and cheesecake, on the other hand, will keep only for 2 to 3 months.

7. **False.** It's a good idea to freeze foods in containers specifically designed for the freezer because they have airtight lids. In addition, they will not burst, an important consideration because foods often expand during freezing.

Answers

Healthy Bites

Illustrations by Barbara Henklovich



Choking Deaths



Balloons are the most frequent cause of choking death in children of all ages. Kids three and older are at special risk.

Problems include swallowing balloons, inhaling uninflated balloons, and suffocating on broken pieces of balloons.

Two children have died after choking on examination gloves that were given to them by their doctors as "prizes."

Foods that kids choke on most include hot dogs, grapes, hard candies, nuts, vegetable and fruit pieces.

Coins, balls, marbles and spherical toy parts also pose a choking hazard. ■

Order a new diabetic 'bible'

A revised version of "Exchange Lists for Meal Planning," a diabetic's basic dietary reference, is now available from the American Diabetes Association for \$4.50. The updated guide includes exchange information on sugary treats, since sugar is no longer off limits for diabetics as long as it's part of a planned diet. Call 800-232-6733 to order. ■

Insect repellent

The content of DEET in commercial insect repellents ranges from 7.5% to 100%. Buy a repellent that has the least possible amount of DEET—or only spray it on the outside of your camping gear or clothing (i.e., around your tent flaps, pant legs, socks).

Excessive amounts of DEET, when absorbed through the skin, can cause dizziness and headaches, and even seizures and coma. ■

Send for an Alzheimer's update

If you're interested in recent advances on Alzheimer's disease, call 800-438-4380 for the National Institute on Aging's free publication, *Progress Report on Alzheimer's Disease, 1995*. ■

Chill liquid foods to cut fat

Here's an easy way to reduce the fat content of canned or homemade soup, stew, or gravy: First, refrigerate the can or other container overnight. Fat will congeal on top, allowing you to skim it away (albeit with some of the flavor). More fat may also stick to the sides as you empty out the contents. ■

Preventing Knee Injuries



Even the slightest of knee injuries, including minor bumps and bruises, can show up later in life as osteoarthritis, a disease afflicting thousands of Americans. Preventing these injuries, or

diagnosing them when they occur, are the goals of the MSU research project under the direction of biomechanics professor Roger C. Haut.

Using a grant from the Centers for Disease Control and Prevention, Haut and colleagues are developing criteria that can be used by athletic equipment manufacturers to design better pads and car companies to design safer vehicles.

"When someone bumps their knee, for example, it can generate microscopic injuries in the bone beneath the cartilage," Haut said. "If this is not taken care of, it can lead to osteoarthritis."

It's estimated that up to \$5 billion is spent every year in treatment and research of osteoarthritis.

Haut and a team of engineers, biologists and clinicians representing three MSU colleges are using animal, computer and math models to study this problem. ■

Hot cars



On a warm day, the temperature inside a car can reach 160 °F in minutes—even if the windows are partially open.

Even if it's only 70°F outside, the danger of overheating exists—especially if you

have a dark-colored car.

Don't leave pets or children unattended.

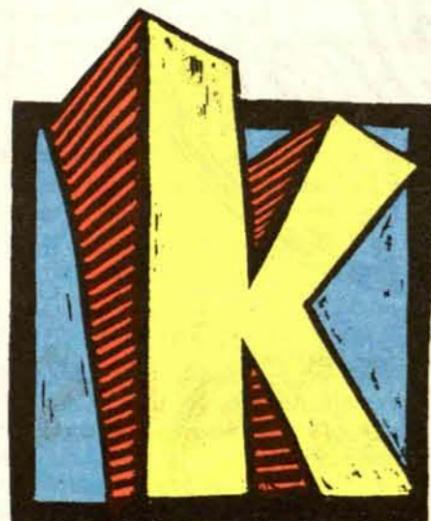
"Overheating is a slow, miserable death—one that's easily preventable." ■

Zap bacteria in seconds



A new non-toxic disinfectant that wipes out disease-causing bacteria within 30 seconds of contact may be available for home use by the end of the year.

In preliminary tests by the manufacturer, the disinfectant killed 99.99 percent of a common food-poisoning bacteria, *salmonella*. It also eliminated two microbes that can cause life-threatening infections in patients with weakened immune systems. The company claims that the environmentally friendly disinfectant isn't harmful if eaten and can be sprayed directly on food preparation or cooking surfaces. The substance is slated for testing by the U.S. Department of Agriculture for use in meat processing plants. ■



There's no vitamin F, but there is a K

A friend of mine says I'm crazy and won't believe that there's really a vitamin K. I know there is, but I never see much about it. Am I right?

You're right—vitamin K does exist. But it is one of the least-known, least-glamorous vitamins around. You probably don't hear much about it because people don't need all that much of it. Deficiencies are extremely rare.

Another reason could be simply alphabetical. We've got vitamins A, B, C, D, E—and K. It was named for the Danish word *koagulation*, because it's used by the liver to make at least four kinds of proteins that help clot blood. Vitamin K also plays a role in producing two other proteins, one related to bone metabolism and the other to kidney function.

The Recommended Daily Allowance for vitamin K is extremely low—80 micrograms for men and 65 micrograms for women. You can get it in a wide range of foods, including green leafy vegetables, liver, whole-grain breads and cereals, eggs, cheese, cauliflower, broccoli and tomatoes. Even better, our bodies use some of the vitamin K produced by bacteria in our digestive tract.

Like vitamins A, D and E, vitamin K is fat-soluble. People who have a long-term problem absorbing fat could become deficient in those vitamins. However, deficiencies in vitamin K usually occur only in people who are hospitalized and are being fed a formula diet that doesn't contain vitamin K. If the person is given antibiotics, they can kill the intestine bacteria that usually produce some of the vitamin. Injections or supplements can restore vitamin K levels to normal.

Clues that you're deficient in vitamin K include easy bleeding and bruising and frequent nosebleeds—but those things are more often caused by something else.

Taking too much vitamin K is possible, but that's also extremely rare. There have been reports of excessive vitamin K causing anemia. But more importantly, too much of the vitamin can interfere with anticoagulants—medications designed to prevent blood clots from forming. ■

Q When warding off both sunburn and mosquitoes, should I put on sunscreen first and then the repellent, or the other way around?

A It makes sense to put on the sunscreen first and the repellent second, although we found no hard scientific evidence that it really makes a difference. Sunscreen needs to be absorbed by the skin, and is best applied half an hour before exposure. Insect repellents containing DEET are volatile: that is, they evaporate and repel the oncoming insect. However, insect repellents containing permethrin should be applied only to clothing, and concentrations of DEET can be hazardous for children and possibly even adults. You can buy special formulations that are only 10% DEET in an oil-based medium, which limits absorption. These can safely be applied to the skin of both children and adults.

A new product called Cutter Insect Repellent with Sunscreen is now on the market. It contains both sunscreen (SPF 15) and 10% DEET and must be reapplied every two to four hours. Whatever product you choose, don't forget your hat and protective clothing, too. ■

Office Calls



You keep recommending five servings of fruits and vegetables a day. Is that five fruits and vegetables a serving?

A Our advice, based on that from the National Cancer Institute, is to eat at least five servings of fruits or vegetables. The USDA, in its Food Pyramid, recommends three to five vegetables and two to four fruit servings. As a general rule, the more food you eat each day, the higher the number of fruits/vegetables you should aim for. Five servings might be enough for, say, a woman eating 1,500 calories a day, but nine would be a better goal for a man eating 3,000 calories. And variety is crucial so that you get a full range of nutrients and beneficial phytochemicals. You shouldn't be eating only oranges or broccoli.

That may sound like a lot of produce, but USDA serving sizes tend to be small: a cup of raw leafy vegetables; ½ cup chopped, cooked, or canned fruits or vegetables (including tomato sauce); one medium carrot; one medium-size whole fruit; one slice of melon (depending on the size); ¼ cup of dried fruit; and ¾ cup of juice. Dry beans (legumes) can be counted either as protein sources, along with meat, or as vegetables; a serving is ½ cup cooked beans. Thus a cup of broccoli, or a medium-size salad, or a cup of lentils—which are commonly eaten portions—each counts as two servings.

For a free brochure about the USDA's food pyramid, send a self-addressed, stamped, business-sized envelope to: The Food Guide Pyramid Brochure, P.O. Box 1144, Rockville, MD 20850. ■

Medical Focus



A breakthrough in ulcer treatment

It's not spicy food or your boss

Mention ulcers and most people think red-hot foods and high-pressure jobs. It's no wonder. For most of this century, the origin of ulcers was believed to be dietary factors such as spicy foods and stress, so for decades one of the cornerstones of ulcer management was a restrictive diet made up of bland foods along with stress reduction. These strategies were thought to help minimize the stomach's secretion of acid, which in turn would promote the healing of ulcers.

The rationale made sense, considering that ulcers are irritations or sores that occur either in the lining of the stomach, a part of the small intestine called the duodenum, or, less commonly, the esophagus. In a normal gastrointestinal (GI) tract, the secretion of stomach acid is perfectly innocuous (it aids in the digestion of food), but in a GI tract with an ulcer, it's akin to repeatedly pouring acid over an open wound. Each burst of acid can cause pain and further erode the area in and around the ulcer.

Left untreated, so much of the stomach or intestinal lining is eaten away that the ulcer may begin to bleed, leading to vomiting of blood or blood in the stools. In extreme cases, hemorrhaging can be fatal.

Alternately, an ulcer can become perforated, an emergency medical situation in which the ulcer "breaks through" the lining of the stomach or intestine — in effect making a hole in the organ's wall. The contents of the stomach or intestine spill into the entire abdominal cavity (which houses the intestines, pancreas and other organs) and contaminates the area, causing life-threatening shock and inflammation.

To prevent such catastrophes, ulcer sufferers were advised to avoid not only spicy foods but also coffee (even decaffeinated blends) and tea, all of which were thought to trigger excess acid secretion. In addition, they were often told to eat several small meals throughout the day and drink plenty of whole milk. Food, particularly milk, was thought to neutralize the acid and buffer the stomach's lining.

Bed rest, hospitalization, and other means of providing relaxation were also encouraged because stressful situations were thought to boost acid production. Alcohol, which may irritate the stomach lining, was off-limits.

Today, however, experts hold that special diets do nothing to help heal ulcers. Research has shown that even such highly seasoned foods as hot sauce and jalapeño peppers do not cause the secretion of more acid than other foods. As for milk, in the 1980s it was shown the beverage ranks as a poor buffer of stomach acid because, like other foods, once it hits the stomach, it stimulates acid secretion. When it comes to alcohol, coffee, and tea, even moderate amounts have never been shown either to cause ulcers or to prevent them from healing.

Of course, "If a food bothers you, don't eat it," advises C. Mel Wilcox, MD, vice chair of the Ulcer Education Campaign and associate professor of medicine at the University of Alabama at Birmingham. But there's no reason for ulcer sufferers to follow any particular eating plan.

As for stress, again, experts say that its role in ulcer development has long been misunderstood. "Sure, if you put someone in a room with a tube in their stomach to check acid and subject them to stress, their acid output will probably increase," says Dr. Wilcox. "But that kind of rise in acid isn't enough to lead to an ulcer or even aggravate an existing one," he says. Admittedly, chronic stress can cause stomach pain as well as back pain and a host of other physical ills. But it doesn't necessarily signal an ulcer.

What it boils down to is that simply decreasing the amount of acid in the stomach — even via antacids and acid-suppressing drugs such as Tagamet and Zantac — is nothing more than a Band-Aid approach to the treatment of most cases of ulcers. While these and other medications do promote the healing of ulcers, the hitch is that with this treatment alone they keep coming back. It takes a different course of intervention to help get rid of an ulcer once and for all.

Pinpointing the bugs in the system

In 1982, two scientists, J. Robin Warren and Barry Marshall, discovered something that would change the face of ulcer treatment forever: a tiny, spiral-shaped bacterium nestled in the narrow space between the surface of the stomach lining and the thin overlay of mucous gel covering it. They also observed the bug, dubbed *Helicobacter pylori*, in stomach tissue that was irritated and inflamed. It came as a surprise because for more than 20 years researchers had kicked around the idea that disease-causing organisms might reside in the stomach, but the consensus had been that bacteria could not withstand the stomach's acidic environment. *H. Pylori*, however, thrives in such hostile surroundings because it is a prolific producer of an enzyme called urease, which neutralizes acid in the immediate area and wreaks havoc on the mucous layer of the stomach or intestine, apparently weakening the area and setting the stage for corrosion. Even the *H. Pylori*'s spiral shape gives it an edge because it allows the bug to "corkscrew" into the stomach's mucous membrane.

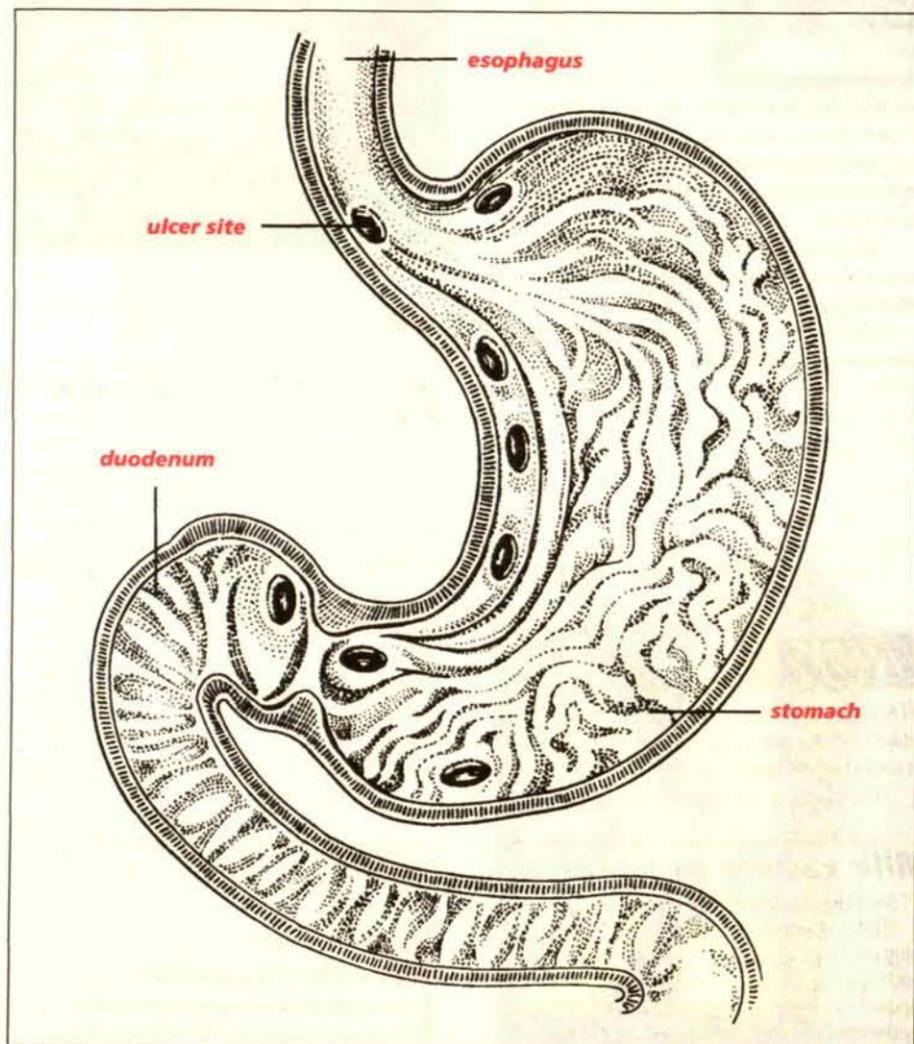
The discovery of *H. Pylori* sparked a spate of studies that ultimately linked it to a number of GI disorders, including most instances of duodenal ulcers, many cases of stomach ulcers, and, very likely, numerous cases of gastric cancer. In fact, *H. Pylori* is nearly always present when the stomach is inflamed. Fortunately, with the right treatment, *H. Pylori* and the problems it causes can be completely eliminated.

Getting the bugs out

Scientists have rarely been able to find the *H. Pylori* bacterium in water, food, or animals other than humans, but they suspect it is transmitted from person to person by the fecal-oral route and may be related to lack of sanitation. In fact, experts believe that around the turn of the century a much larger percentage of the U.S. population carried *H. Pylori*; today, rates of both ulcers and stomach cancer are much lower than they were at that time. What's more, virtually everybody in developing countries, where sanitation standards are low, is infected with the bug.

In the United States, as many as 60 percent of older adults and about 95 percent of people with duodenal ulcers are infected with *H. Pylori*. But not everyone who carries the bug experiences symptoms, for reasons that aren't yet clear. It may be that there are different strains of *H. pylori*, some of which are more virulent than others. Or it may be that some people are more vulnerable to the bug than others, or a combination of the two circumstances. Over time, as researchers learn more about the bug, they may be able to identify carriers of the most dangerous strains and give them treatment to eliminate it. But at this point, experts convened by the National Institutes of Health Consensus Development Panel on *H. pylori* recommend that only patients who harbor the bacterium and have an ulcer undergo a course of antibiotic therapy to get rid of it.

As for treatment, the number of different antibiotic regimens that physicians use are "like alpha-



Ulcers can occur in the esophagus, stomach, or duodenum and most commonly appear at the sites shown. One in 10 Americans develops an ulcer, and some 500,000 new cases are diagnosed annually. In addition, ulcers lead to more than a million hospitalizations a year.

A common superstition is that the major cause of ulcers are drugs, stress, spicy foods and caffeine when actually it is a tiny bacteria.

bet soup" according to Dr. Wilcox, but the standard therapy is an aggressive drug program involving taking three medications — about a dozen pills — everyday for two weeks. The reason is the *H. pylori* is a tough bug to kill. It burrows into the stomach or intestine's mucous layer which makes it difficult for the antibiotics to get at it. In addition, the high-acid environment of an ulcer sufferer's GI tract can reduce the effectiveness of many antibiotics.

The therapy aims at lowering the acid content of the stomach, as much as possible, and then dousing it with antibiotics. For example, a typical regimen includes a potent acid-suppressing drug taken once a day and Pepto-Bismol four times a day, both of which minimize stomach acid, along with one or two antibiotics three or four times a day.

Admittedly, this fairly rigorous pill-popping routine can be a hassle, and the antibiotics can cause unpleasant side effects such as diarrhea and stomach upset, particularly in the "downtrodden" GI tracts of ulcer sufferers. Still, the therapy lasts only two weeks, and in 75 to 90 percent of cases, the ulcer is completely cured and won't come back.

Given that at least nine out of 10 people with duodenal ulcers harbor *H. pylori*, most sufferers of that type of ulcer are candidates for antibiotic therapy. An estimated 70 to 80 percent of people with gastric (stomach) ulcers, on the other hand, have the problem primarily as a result of chronic ingestion of anti-inflammatory medications such as aspirin or ibuprofen (the active ingredient in Motrin and a number of other over-the-counter drugs), which are extremely irritating to the stomach. Even for these ulcer sufferers, however, the National Institute of Health panel recommends that if they are infected with *H. pylori*, they should also be given antibiotics to eradicate the bug. If they must continue taking anti-inflammatory drugs such as aspirin because of health problem such as arthritis, then they may have to continue taking antacids or acid suppressing drugs over the long haul to minimize the drug-induced damage to the stomach. ■

Reprinted with permission from the Tufts University Diet and Nutrition Letter, Vol. 13, No. 11, January 1996.

Testing for *H. pylori*

A physician can test for *H. pylori*, the bacterium responsible for most ulcers, using several different methods:

Blood test — When *H. pylori* settles into a person's GI tract, the body's defense mechanisms respond to the invasion by producing antibodies specifically aimed at the unwelcome guests. These antibodies can be detected in the blood of *H. pylori* carriers.

Endoscopy — To conduct this test, a tube with a light on the end is passed through the patient's mouth and esophagus, and then into the stomach and/or duodenum. The endoscopic tube allows the physician to view the interior of the stomach or intestine and remove a small sample of the organ's lining. Scientists can then analyze the tissue to check for *H. pylori* — as well as for the presence of ulcers themselves.

Urea Breath Test (UBT) — For this procedure, for which FDA approval is pending, the patient swallows water to which a harmless substance called urea has been added. He then exhales into a tube hooked up to sophisticated equipment that measures components of the breath. If *H. pylori* is present, it produces urease, an enzyme that breaks down urea to substances that can be detected by the equipment.

Soybean Marketing Challenge monthly position reports!

The Andersons

by Marvin L. Hodson and Steve Beier

We have established our marketing plan based on the market opportunities and the constraints of the Soybean Market Challenge. Our marketing plan established four marketing blocks for pricing decisions. We estimated four blocks at 5,000 bushel each, which equates to a 40 bushel per acre yield.

For this challenge, our strategy is one of utilizing an action point/stop loss method to manage downside price risk while leaving room for upside opportunity.

The first part of May brought the rapid sell-off we were expecting, but the threat of delayed and prevented plantings suggested that fundamentally, we need to have some price opportunity that a straight futures sale would not afford. Therefore, we modified our plan of advancing sales to one of buying an at-the-money Put option, once our action of \$8.10 on the November futures was achieved or our

stop-loss level of \$7.50 was reached.

Early June brought a close below the \$7.50 level. Remaining disciplined in our approach, we bought a \$7.50 November Put on our third block of 5,000 bushels of soys, taking us to 75 percent committed. This Put option gives us the right, but not the obligation to sell November futures at \$7.50.

If the futures level is above \$7.50, we can sell at the higher price. However, we know that we will not get less than the \$7.50 futures level, providing that production is not a problem. If production does become an issue, we know we have a limited and known cost to exit the commitment.

In summary, we are 75 percent sold on our estimated production of 20,000 bushels. Fifty percent is sold via short November futures and 25 percent is committed using a \$7.50 November Put option. We now have the majority of our price risk management tools in place. We will now await further crop development and, if necessary, react to aggressive price movements.

Good luck with your wheat harvest! ■

Michigan Agricultural Commodities

Bruce Sutherland

At presstime, our average short hedge is 7.5575 on 10,000 bushels of November soybeans. We feel comfortable at this stage to leave the last third open. We will continue to monitor the market as we feel that the late planting will create more upside potential for soys in the pollination stage of August.

The market will be supported at \$7.36 and we

feel that risking the downside from current levels is prudent noting the crop problems we have experienced. The month of July can bring our hottest and driest weather that could create good marketing opportunities.

Acreage planted to date has been reported at 69.3 million acres. This number has the potential to produce an adequate crop. This will be our limiting upside information if we see November futures reach the \$8 level. ■

"Shady Lawn Farm"

Saturday Morning Boys

by Bill Spike

Thanks to this past planting season, we have a soybean crop that is extremely variable in condition and maturity. We have a lot of beans planted later than normal and in less than ideal condition, but we don't know how many acres are planted.

The size of this year's crop is still a huge question mark.

Even USDA plans to resurvey some areas because they're not comfortable with their 63.8 million acre figure. We won't have a solid number until the Aug. 9 report. Until then, this market will be as volatile as the weather.

There are many possible weather scenarios to give us a weather rally. For July and August, the most likely one is a period of hot and dry weather at

blossom or pod set. Since we have beans at all stages of maturity, that could be at anytime during the next six weeks.

Beyond that, we have to consider the possibility of an early frost to fuel a late season rally. After all of that, we have harvest which starts to reveal actual yields. We already know late planting reduces yields, but the trade believes that if beans are growing, the yields will be normal. Harvest reports of below normal yields could spike another rally.

Having said all of that, I'm comfortable to stand pat for now with our marketing plan. We are currently hedged on 40 percent of the anticipated crop which could end up being 50 percent or more. For the month of June, November futures have traded in the \$7.25 to \$7.50 range. As long as we hold support above \$7.20, we will wait to make additional trades. ■

Monthly Position Statements

Account Balances	Beg. Bal.	Margins	Profit/(Loss)	Commission	End. Bal.
Andersons	\$20,000	(5,000)	312.50	(112.50)	\$15,200.00
MAC	\$20,000	(5,000)	962.50	(75.00)	\$15,887.50
SLF	\$20,000	(5,000)	(2,262.50)	(75.00)	\$12,662.50

Michigan Soybean Marketing Challenge Award Sponsors:



Milk causes lung cancer?

From the "Say What" department, tobacco giant Philip Morris recently unleashed a new advertising campaign claiming milk drinkers can run as much of a risk of contracting lung cancer as people exposed to secondhand cigarette smoke. The ads say the consumption of milk, diets high in saturated fat, cookies and chlorinated water pose lung cancer risks, are running in newspapers, magazines and on the Internet in Europe.

Philip Morris compares the relative risk of

milk consumption to the relative risk of second-hand smoke exposure, saying drinking one to two glasses of whole milk per day carries a relative lung cancer risk of 1.62 — and risk between 1.0 and 2.0 is considered a "weak association" from which no conclusion can be drawn, according to the Associated Press.

"The average consumer is going to see through this apparent weak linkage," said University of Wisconsin dairy specialist Norman Olson.

In a letter to Philip Morris CEO, Geoffrey C.

Bible, Michigan Farm Bureau president Jack Laurie expressed alarm that the firm would employ such an ethical advertising strategy that's an insult to producers all across the country.

"But what's even more reprehensible is Philip Morris' blatant disregard for the wholesomeness and safety of this country's entire food supply. Your organization's advertisements encourages consumer skepticism about the efforts of producers, processors and regulators to provide the safest and most abundant food supply in the world. Any mon-

etary gain Philip Morris derives from this smear campaign comes at the expense of all commodities — not just milk."

Laurie went on to suggest that Philip Morris use real science and facts to back up their claims in future advertising campaigns, and that it also cancel it's current campaign.

Just in case your wondering, Philip Morris CEO Geoffrey Bible's address is 120 Park Ave., New York, NY 10017-5592. ■

Dental costs don't have to scare you.

Member Dental Insurance from Michigan Farm Bureau

Member dental insurance is the affordable way to assure that you and your family receive the dental care services you require — even when sudden and costly needs arise.

Measure the rates against your annual dental care bills and consider the advantage!

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 CITY _____ STATE _____ ZIP _____
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MFB DENTAL

MFB's AgriPac Committee in action!

MF B's AgriPac Committee has made its 1996 Primary Election endorsements with the "Friends of Agriculture" designation after receiving recommendations from county Farm Bureau Candidate Evaluation Committees, according to MFB Public Affairs Director Al Almy.

"Those recommendations are based, in part, on review of the incumbent's voting record on key agricultural issues, as well as possible interviews at the local level," Almy explained. "The MFB AgriPac Committee then considers the county recommendations in making their final 'Friends of Agriculture' designations."

Almy says the Farm Bureau members who serve on the county Farm Bureau Candidate Evaluation Committees are vital in the process since the attitudes of their county members and they know whether the candidate recognizes the importance of agriculture.

"Local committees conduct candidate interviews, evaluate voting records, study position statements and review individual candidate questionnaires," Almy said. "That's the kind of frontline evaluation our AgriPac Committee uses to determine

which candidates will be designated 'Friends of Agriculture.'"

Other criteria used by the county committees and AgriPac for incumbents include the degree of special effort to introduce, support or oppose legislation in accordance with Farm Bureau policy, and communications with constituents.

According to Almy, this meticulous process has earned the AgriPac endorsement a great deal of respect in the political arena and is highly sought for reasons other than sheer financial support. The endorsement does not automatically mean a direct financial contribution to the candidate's campaign.

It does mean, however, that AgriPac can use MFB's extensive communication network of publications and volunteers to promote the endorsed candidates among the 145,000 Farm Bureau members in the state.

"Everyone, including the candidates, knows that Michigan Farm Bureau members can be a major factor at the polls because they take their citizenship responsibilities very seriously and actually vote," Almy said. "Consequently, we can deliver on the commitment we have made to agriculture's friends."

Key to issues for the Michigan House of Representatives

MI Issue 1 — Land Sale Disclosure Statement (H.B. 4299) — Vote on passage of a bill to amend the Land Sales Act to include notification to buyers of property through a statement that says that a farm may be located in the vicinity and may be protected by the Right-To-Farm Act. The Michigan House of Representatives passed the bill March 2, 1995. *Farm Bureau favored a "Y" vote.*

MI Issue 2 — Right-To-Farm (H.B. 4300) — Vote on passage of a bill to amend the Michigan Right-To-Farm Act to update the definition of a farm and to clarify farm operations not included in the original Right-To-Farm Act. The Michigan House of Representatives passed the bill March 2, 1995. *Farm Bureau favored a "Y" vote.*

MI Issue 3 — Michigan State University Funding (H.B. 4425) — Vote on passage of a bill to provide an additional \$10.4 million funding to MSU. This additional funding was spearheaded by Farm Bureau's "Chip in for MSU" campaign to partially address previous funding inequities to MSU. The Michigan House of Representatives passed the bill April 5, 1995. *Farm Bureau favored a "Y" vote.*

MI Issue 4 — Transportation Exemption (H.B. 4850) — Vote on passage of a bill to amend the Michigan Vehicle Code to include the transport of other materials necessary in the normal operation of a farm plus add a truck tractor and semitrailer or trailer to the vehicles allowed to transport saw logs, pulpwood and tree length poles as long as the entire vehicle including the load does not exceed 70 feet in length. The Michigan House of Representatives passed the bill Oct. 5, 1995. *Farm Bureau favored a "Y" vote.*

MI Issue 5 — No-Fault Auto Insurance Tort Reform (H.B. 4341) — Vote on passage of a bill to help control the cost of automobile insurance by putting in place no-fault auto insurance tort reform. The Michigan House of Representatives adopted the conference report Nov. 8, 1995. *Farm Bureau favored a "Y" vote.*

MI Issue 6 — Amendments to P.A. 116 (H.B. 4325) — Vote on passage of a bill to amend the Farmland and Open Space Preservation Act to clarify several administrative practices such as defining "permitted uses" of P.A. 116 farmland and to specify that only farmland development rights may be purchased from the funds collected. The Michigan House of Representatives passed the bill Nov. 30, 1995. *Farm Bureau favored a "Y" vote.*

MI Issue 7 — Implements of Husbandry (H.B. 5054) — Vote on passage of a bill to amend the Motor Carrier Safety Act to substitute a 25 MPH speed limit in lieu of equipping drawn or self-propelled implements of husbandry with brakes and coupling devices, or both. The Michigan House of Representatives passed the bill Nov. 30, 1995. *Farm Bureau favored a "Y" vote.*

MI Issue 8 — Elimination of Mandated Auto Territories (H.B. 5177) — Vote on passage of a bill to eliminate state mandated auto territories and allow insurance companies to determine auto rates based on each community's experience. The Michigan House of Representatives passed the bill Dec. 7, 1995. *Farm Bureau favored a "Y" vote.*

MI Issue 9 — Youth Workers (S.B. 542) — Vote on passage of a bill to amend the Youth Employment Standards Act to allow minors 16 years of age or older to be employed in agricultural processing facilities for periods greater than the periods otherwise legally allowed under prescribed conditions. The Michigan House of Representatives passed the bill Dec. 7, 1995. *Farm Bureau favored a "Y" vote.*

MI Issue 10 — Environmental Audits (S.B. 728) — Vote on passage of a bill to allow for companies/farms that have a historical environmental problem to voluntarily come forward to develop a privileged environmental evaluation. Once the evaluation is complete and a cleanup plan of action is developed, the individual is exempt from any local, state or federal environmental law. The Michigan House of Representatives passed the bill Feb. 27, 1996. *Farm Bureau favored a "Y" vote.*

AgriPac Endorsements for the Michigan House of Representatives

		Michigan House District	1	2	3	4	5	6	7	8	9	10	VOTES SUPPORTING MFB POLICY	VOTES OPPOSING MFB POLICY	ABSENT OR NOT VOTING	MFB SCORE (%)
			Land Sale Disclosure Statement (H.B. 4299)	Right-To-Farm (H.B. 4300)	Michigan State University Funding (H.B. 4425)	No-Fault Auto Insurance Tort Reform (H.B. 4850)	Amendments to P.A. 116 (H.B. 4325)	Implements of Husbandry (H.B. 5054)	Elimin. of Mandated Auto Territories (H.B. 5177)	Youth Workers (S.B. 542)	Environmental Audits (S.B. 728)					
Alley, Tom (D-West Branch)	103	Y	Y	Y	Y	?	Y	Y	Y	Y	Y	9	0	1	90	
Anderson, William (R-Brighton)	66	N	O	N	-	I	N	C	U	M	B	E	N	T		
Anthony, David (D-Escanaba)	108	Y	Y	Y	Y	n	Y	Y	Y	n	n	7	3	0	70	
Baade, Paul (D-Muskegon)	91	Y	Y	Y	Y	n	Y	Y	Y	Y	n	8	2	0	80	
Bachelder, Chris (R-Northville)	38	N	O	N	-	I	N	C	U	M	B	E	N	T		
Banks, Lyn (R-Redford Township)	19	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Bobier, Bill (R-Hesperia)	101	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Bodern, Beverly (R-Alpena)	106	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Brackenridge, Bob (R-St. Joseph)	79	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Brewer, Lingg (D-Holt)	68	Y	Y	Y	Y	n	?	Y	n	?	n	5	3	2	50	
Buckley, David (R-Bloomfield Hills)	40	N	O	N	-	I	N	C	U	M	B	E	N	T		
Bush, Eric (R-Battle Creek)	62	Y	Y	Y	Y	Y	Y	Y	Y	Y	n	9	1	0	90	
Byl, William (R-Grand Rapids)	75	Y	Y	Y	Y	Y	?	Y	Y	Y	Y	9	0	1	90	
Crissman, Penny (R-Rochester)	45	?	?	?	?	Y	Y	Y	Y	Y	n	6	1	3	60	
Cropsey, Alan (R-DeWitt)	86	?	?	?	?	Y	Y	Y	Y	Y	Y	8	0	2	80	
Dalman, Jessie (R-Holland)	90	Y	Y	n	Y	Y	Y	Y	Y	Y	Y	9	1	0	90	
DeMars, Robert (D-Lincoln Park)	25	Y	Y	Y	Y	n	Y	Y	Y	Y	Y	9	1	0	90	
DeVuyst, Larry (R-Ithaca)	93	N	O	N	-	I	N	C	U	M	B	E	N	T		
Dobb, Barbara (R-Commerce)	39	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Dobronski, Agnes (D-Dearborn)	15	Y	Y	Y	Y	?	Y	Y	Y	n	n	7	2	1	70	
Fleetham, David (R-Ferndale)	35	N	O	N	-	I	N	C	U	M	B	E	N	T		
Gagie, Martin (R-Kalamazoo)	60	N	O	N	-	I	N	C	U	M	B	E	N	T		
Gagliardi, Pat (D-Drummond Island)	107	?	?	n	Y	n	Y	Y	Y	?	Y	5	2	3	50	
Galloway, David (R-White Lake)	44	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Geiger, Terry (R-Lake Odessa)	87	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Gernaat, John (R-McBain)	102	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Gilmer, Donald (R-Augusta)	63	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Gire, Sharon (D-Clinton Township)	31	Y	Y	n	Y	n	Y	Y	Y	?	n	6	3	1	60	
Glaab, David (R-New Boston)	23	N	O	N	-	I	N	C	U	M	B	E	N	T		
Goschka, Michael (R-Brant)	94	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Green, Mike (R-Mayville)	84	Y	Y	Y	?	Y	Y	Y	Y	Y	Y	9	0	1	90	
Griffin, Michael (D-Jackson)	64	Y	Y	Y	Y	Y	?	Y	Y	Y	Y	9	0	1	90	
Gustafson, Dan (R-Williamston)	67	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Hammerstrom, Beverly (R-Temperance)	55	?	?	?	?	Y	Y	Y	Y	Y	n	7	1	2	70	
Hanley, Michael (D-Saginaw)	95	Y	Y	Y	Y	n	Y	Y	n	n	n	6	4	0	60	
Hill, Sandra (R-Montrose)	47	Y	Y	Y	Y	?	?	Y	Y	Y	Y	9	0	1	90	
Horton, Jack (R-Belmont)	73	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Jellema, Jon (R-Grand Haven)	89	Y	Y	Y	Y	?	?	Y	Y	Y	Y	9	0	1	90	
Jersevic, Roland (R-Saginaw)	96	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Johnson, Shirley (R-Royal Oak)	41	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Kukuk, Alvin (R-Macomb)	33	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Law, Gerald (R-Plymouth)	20	Y	Y	n	Y	Y	Y	Y	Y	Y	Y	9	1	0	90	
LeMaitre, Dennis (R-Westland)	18	N	O	N	-	I	N	C	U	M	B	E	N	T		
LeTarte, Clyde (R-Horton)	65	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Llewellyn, John (R-Fremont)	100	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
London, Terry (R-Marysville)	81	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Lowe, Allen (R-Grayling)	105	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Mathieu, Thomas (D-Grand Rapids)	76	Y	Y	Y	n	Y	Y	Y	n	Y	Y	8	2	0	80	
McBryde, Jim (R-Mt. Pleasant)	99	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
McManus, Michelle (R-Lake Leelanau)	104	?	?	?	?	Y	Y	Y	Y	Y	Y	8	0	2	80	
McNutt, James (R-Midland)	98	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Middaugh, James (R-Paw Paw)	80	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Middleton, Thomas (R-Ortonville)	46	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Nye, Michael (R-Litchfield)	58	Y	?	?	?	Y	Y	?	?	Y	Y	6	0	4	60	
Oxender, Glenn (R-Sturgis)	59	Y	Y	Y	?	Y	Y	Y	Y	Y	Y	9	0	1	90	
Pavelich, Chris (R-Flint)	50	N	O	N	-	I	N	C	U	M	B	E	N	T		
Perricone, Charles (R-Kalamazoo)	61	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Pitoniak, Gregory (D-Taylor)	22	Y	Y	Y	n	Y	Y	Y	n	Y	Y	8	2	0	80	
Price, Hubert Jr. (D-Pontiac)	43	Y	Y	Y	n	Y	Y	n	Y	n	Y	7	3	0	70	
Profit, Kirk (D-Ypsilanti)	54	Y	Y	n	Y	n	?	Y	Y	Y	n	6	3	1	60	
Prusi, Michael (D-National Mine)	109	o	o	o	o	Y	n	Y	Y	Y	n	4	3	0	57	
Rhead, Kim (R-Sandusky)	83	Y	Y	Y	?	Y	Y	Y	Y	Y	Y	9	0	1	90	
Rocca, Sue (R-Sterling Heights)	30	Y	Y	Y	Y	Y	Y	Y	Y	Y	n	9	1	0	90	
Romanowski, Edward (R-Detroit)	9	N	O	N	-	I	N	C	U	M	B	E	N	T		
Ross, Jeffrey (R-Okemos)	70	N	O	N	-	I	N	C	U	M	B	E	N	T		
Ryan, James (R-Redford)	16	Y	Y	Y	Y	Y	Y	Y	Y	Y	n	9	1	0	90	
Sanborn, Alan (R-Richmond)	32	N	O	N	-	I	N	C	U	M	B	E	N	T		
Sikkema, Ken (R-Grandville)	74	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Tesanovich, Paul (D-L'Anse)	110	Y	Y	n	?	n	Y	Y	Y	n	n	5	4	1	50	
VanderArk, Darwin (R-Wayland)	88	N	O	N	-	I	N	C	U	M	B	E	N	T		
Vander Molen, Richard (R-Kentwood)	72	N	O	N	-	I	N	C	U	M	B	E	N	T		
Varga, Ilona (D-Detroit)	8	Y	Y	Y	?	?	?	?	n	Y	Y	5	2	3	50	
Voorhees, Harold (R-Grandville)	77	Y	Y	Y	Y	n	Y	Y	Y	Y	Y	9	1	0	90	
Walberg, Timothy (R-Tipton)	57	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0	0	100	
Webb, Cathleen (R-Northville)	37	N	O	N	-	I	N	C	U	M	B	E	N	T		
Weeks, Lloyd (D-Warren)	28	Y	Y	Y	Y	n	n	Y	Y	n	Y	7	3	0	70	
Willard, Karen (D-Algonac)	82	Y	Y	Y	Y	n	Y	Y	Y	n	n	7	3	0	70	
Worthy, Howard (D-Detroit)	14	N	O	N	-	I	N	C	U	M	B	E	N	T		
Yardley, David (R-Sawyer)	78	N	O	N	-	I	N	C	U	M	B	E	N	T		

Winning tractor bid placed by Norma Guyer

For the second year in a row, the first-lady of Michigan agriculture, Mrs. Norma Guyer — the wife of MDA Director Dr. Gordon Guyer — placed the winning bid of \$1,500 for the 1996 Michigan FFA Collectors Tractor prototype during Michigan State University's Ag Expo VIP breakfast. State FFA officers pictured with Norma and Dr. Guyer are (left to right) Kevin Nugent, Kristin Prelesnik, Teresa Swamba and Jack Schut.

This year's collector tractor, the Oliver 1555, will be available for purchase in September at your local Quality Farm & Fleet and County Post Stores. All proceeds directly benefit the Michigan FFAs students.



MFB's AgriPac endorsements

Key to issues for the U.S. House of Representatives

US Issue 1 — Unfunded Mandates (H.R. 5) — Vote on passage of a bill to require any bill imposing costs of more than \$50 million on state and local governments to provide a Congressional Budget Office cost analysis and specify how the proposals would be financed. The U.S. House of Representatives passed the bill Feb. 1, 1995. *Farm Bureau favored a "Y" vote.*

US Issue 2 — Line-Item Veto (H.R. 2) — Vote on passage of a bill to allow the President to veto any part of an appropriations bill or of a tax provision unless Congress passed a resolution within 20 session days restoring the veto. The U.S. House of Representatives passed the bill Feb. 6, 1995. *Farm Bureau favored a "Y" vote.*

US Issue 3 — Health Insurance Deduction (H.R. 831) — Vote on passage of a bill to make permanent the 25 percent tax deduction for health insurance premiums paid by the self-employed and make the deduction retroactive to Jan. 1, 1994. The U.S. House of Representatives passed the bill Feb. 21, 1995. *Farm Bureau favored a "Y" vote.*

US Issue 4 — Regulatory Reform (H.R. 926) — Vote on passage of a bill requiring federal agencies to conduct a regulatory impact analysis before promulgating a major rule with an annual impact on the economy of more than \$50 million. The U.S. House of Representatives passed the bill March 1, 1995. *Farm Bureau favored a "Y" vote.*

US Issue 5 — Private Property Rights (H.R. 925) — Vote on passage of a bill requiring federal agencies to compensate private property owners for federal actions that reduce the value of any section of their property by 20 percent or more

unless the action was taken to protect public health or safety, to prevent damage to other specific property, or the federal action was in agreement with local zoning regulations or state laws barring nuisance actions. The U.S. House of Representatives passed the bill March 3, 1995. *Farm Bureau favored a "Y" vote.*

US Issue 6 — Wetlands Definition and Compensation (H.R. 961) — Vote on passage of an amendment to the Clean Water Act to broaden the definition of a wetland and eliminate provisions for compensating private landowners and expediting the wetlands permitting process. The U.S. House of Representatives defeated the amendment May 16, 1995. *Farm Bureau favored a "N" vote.*

US Issue 7 — Clean Water Act (H.R. 961) — Vote on passage of a bill to revise the Clean Water Act including provisions to subject numerous federal water pollution control regulations to cost-benefit analysis and require the federal government to reimburse landowners if wetlands regulations cause a 20 percent or greater decrease in land value. The U.S. House of Representatives passed the bill May 16, 1995. *Farm Bureau favored a "Y" vote.*

US Issue 8 — FY 1996 Budget Resolution (H. Con. Res. 67) — Vote on passage of a concurrent resolution to adopt a 7-year budget plan that would balance the budget by 2002. The U.S. House of Representatives passed the resolution May 18, 1995. *Farm Bureau favored a "Y" vote.*

US Issue 9 — Farm Bill Conservation Program (H.R. 2854) — Vote on passage of an amendment to eliminate the Farm Bill's provisions regarding conservation programs and replace them

AgriPac Endorsements for the U.S. House of Representatives

KEY

Y, N Voted "YES" or "NO" supporting MFB policy

y, n Voted "yes" or "no" against MFB policy

? Did not vote

o Not elected to House at time of vote

	1	2	3	4	5	6	7	8	9	10	VOTES SUPPORTING MFB POLICY	VOTES OPPOSING MFB POLICY	ABSENT OR NOT VOTING	MFB SCORE (%)
Barcia, James (D-Bay City)	5	Y	Y	Y	Y	N	Y	n	Y	Y	9	1	0	90
Camp, David (R-Midland)	4	Y	Y	Y	Y	N	Y	Y	Y	Y	10	0	0	100
Chrysler, Dick (R-Brighton)	8	Y	Y	Y	Y	N	Y	Y	Y	Y	10	0	0	100
Ehlers, Vern (R-Grand Rapids)	3	Y	Y	?	Y	n	y	n	Y	Y	6	3	1	60
Fitzimmons, Joe (R-Ann Arbor)	13	N	O	N	-	I	N	C	U	M	B	E	N	T
Heintz, Susy (R-Clinton Twp.)	10	N	O	N	-	I	N	C	U	M	B	E	N	T
Hoekstra, Peter (R-Holland)	2	Y	Y	Y	Y	Y	N	Y	Y	Y	10	0	0	100
Knollenberg, Joe (R-Bloomfield Twp.)	11	Y	Y	Y	Y	N	Y	Y	Y	Y	10	0	0	100
Nowak, Patrick (R-Clarkston)	9	N	O	N	-	I	N	C	U	M	B	E	N	T
Smith, Nick (R-Addison)	7	Y	Y	Y	Y	N	Y	Y	Y	Y	10	0	0	100
Upton, Fred (R-St. Joseph)	6	Y	Y	Y	Y	Y	Y	Y	Y	Y	9	1	0	90

U.S. Senate AgriPac Endorsement

Romney, Ronna (R-Bloomfield Hills) **N O N - I N C U M B E N T**

with language reauthorizing the conservation reserve program and the wetlands reserve program. The amendment also created an environmental quality incentive program to provide cost-share assistance to crop and livestock producers. The U.S. House of Representatives passed the amendment Feb. 28, 1996. *Farm Bureau favored a "Y" vote.*

US Issue 10 — Farm Bill Passage (H.R. 2854) — Vote on passage of a bill to reauthorize all

major federal farm programs through 2002, replacing current price-support programs with a system of fixed annual payments to farmers that would decline over the next 7 years; give farmers more flexibility in deciding what to plant; modify the sugar program; and phase out price supports for butter, powdered milk and cheese. The U.S. House of Representatives passed the bill Feb. 29, 1996. *Farm Bureau favored a "Y" vote.*

Precision Agriculture

Precision agriculture is about information. Its technologies give farmers the ability to collect huge amounts of detailed, site-specific data about their land and crops. But anyone who has struggled with a large jigsaw puzzle understands the farmer's challenge to piece all this information together into a coherent picture that allows him to make effective decisions about his crop production system.

Fortunately, technology provides a tool to help the farmer make sense of all the pieces of his information puzzle. That tool is a geographic information system (GIS). GIS is a computer software program that pulls together all the geo-referenced information collected by the various components of precision agriculture: grid sampling, yield monitors, field scouting, etc. GIS stores hundreds of thou-

sands of data points that are collected in a field and geographically referenced to specific locations in the field. The software processes this data to create detailed maps (or graphs and reports) that allow the farmer to see — in a way never before possible — all the variables affecting yield in a particular field or in specific areas of the field.

The integrated GPS/GIS system Terra uses for its Precision In Agriculture™ package records and stores information on:

- soil properties
- soil analysis results
- crop yields
- crop moisture
- weather conditions
- crop varieties
- planting rates
- input applications (rates and locations)
- weed pressures (types and locations)
- insect infestations
- diseases (level and location)
- field perimeters
- field topography (creeks, ditches, etc.)

Collected over a period of time, this data gives

the farmer a history of his crop production system. It's a digital record of how a field — and specific areas of a field — responded to variables such as moisture levels, weed and insect pressures, planting rates, and fertilizer and chemical applications.

The real power of GIS is its ability to process all this data and then to present it in a usable visual form, such as maps, for the farmer. However, GIS-generated field maps are different from traditional maps. A specific point on a traditional map is "dumb" in that it has little or no data associated with it, except possibly for coordinates that describe its physical location. With a GIS map, the software program links a single point (or a series of points that define an area) to all the information stored about the point(s) in the database. As a result, GIS is able to provide layers of information for a point of land or an entire field. It allows the farmer or Terra's cropping systems advisors to analyze and correlate yield results to soil type, chemical/fertilizer application rates, topography, plant population, weed/insect pressures and any other production variables represented in the GIS database.

GIS software and its associated database are

important tools that Terra's cropping systems advisors use to generate cropping prescriptions for customers. This is the payoff for the farmer who uses GPS/GIS technology to systematically collect data: he is able to implement his own site-specific management program based on detailed information about his land and the crops he grows, not just averages or assumptions. With a complete picture of his crop production system, the farmer can identify and take control of the variables in his operation and increase his productivity.

The topic of next month's column will be the data devices that quickly and easily transport information from the field to a personal computer.

Terra

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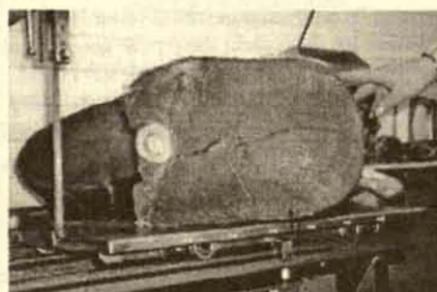
Perry M. Petersen, C.P. Ag.-CCA,
Corporate Manager, Precision Agriculture
Terra Industries Inc.
Phone: (800) 831-1002 & (712) 277-1340
Fax: (712) 277-7383

Looking for the beef? Try Piedmontese

Piedmontese Field Day July 20 in Lapeer

Four years ago, Lapeer County Farm Bureau member Ron Mroz was looking for a new bull and a way to add value to his beef animals when he saw an article in a magazine about the lean beef produced by Piedmontese cattle.

Today, Ron and his wife, Sandy, are Michigan's biggest advocates for the beef breed that has only been in the United States for approximately 10 years. They own 11 full-blooded Piedmontese as breeding stock.



Piedmontese beef is unique because of its small amount of marbling and fat.

The Piedmontese cattle comes a unique beef breed from the hills of Italy, in the Piedmont region, hence the name. Currently there are over 625,000 Italian Piedmontese cattle, of which 45,000 are registered.

"Everybody's trying to find a niche market, whether it's lean beef or selling to restaurants," stated Mroz. "Some people still look at steaks and want a well-marbled steak, which is all your fat and cholesterol. And they see a lean piece of meat, which is actually better for you, but still visualize it as being tough. The Piedmontese, with the structure of the muscle and the meat, actually is a tender meat. I'd like to see every supermarket handling Piedmontese beef."

U.S. Department of Agriculture and laboratory research on the beef has produced some remarkable results: a 3½ ounce serving of pure Piedmontese beef has 1.7 grams of fat — less than a similar sized serving of skinless chicken and closer to turkey than to most cuts of beef. The amount of cholesterol (35 milligrams in 3½ ounces for pure Piedmontese, 64 in half-Piedmontese) is also considerably lower than many alternatives.

According to Mroz, breeding Piedmontese with other more popular cattle breeds, herefords in his case, lowers the marbling and fat of the offspring.

"With the double-muscling, they're a distinct breed when you look at them," states Mroz. "The biggest thing is, people look at them and they think of calving problems, but actually the double-muscling doesn't start on them until they're five or six weeks old, you can see it starting to be developed. But before that, they don't have hardly anything; they come out long and slender."

The double muscling also poses the question about how much feed does the animal take. According to Mroz, they're comparable to herefords as far as daily gain and intake. "They might be just a little behind, but not a lot. What you lose in daily gain, you're gaining in higher yields."

In Michigan, there are only seven members of the Piedmontese Association of the United States (PAUS). But the Mrozs are confident that the breed is ready to take off throughout the state. So much so they have put together a Piedmontese Field Day on their farm on July 20 and invited anyone interested in learning more about the breed. They hope to begin the formation of a Michigan



Ron Mroz certainly isn't bashful in his staunch support of the Piedmontese breed and is always willing to show off his favorite animals.

Piedmontese Association. The program will begin at 10 a.m. with lunch served from 11:30 to 1 p.m. featuring (of course) Piedmontese beef. Other highlights of the field day include an embryo flushing and implanting demonstration by PAUS Vice President Wayne Schlabach from Ohio, an animal display and a question and answer session.

For more information on Piedmontese in Michigan or for directions to the July 20 field day, call the Mrozs at (810) 667-7389.

Late planting and insect problems

by Mike Haas, Entomology

Given the planting delays and unusual weather this season, what potential insect problems should producers be aware of? The following are situations which may occur this year.

Burndown herbicide applications made too close to the time of crop emergence allow insect pests which were present on the weeds to move to the crop. Weeds should have been killed at least one week prior to crop emergence to starve the insects which may have been present.

Insect movement onto the crop may also occur after post-emergence herbicide applications are made late to well-established weeds. Look for the insects on the weeds as well as the crop when scouting these fields. An insecticide may be included with the herbicide when warranted by insect numbers and potential for damage.

The adults of armyworms, cutworms and stalk borers are all moths which may lay eggs on weeds. Armyworms and stalk borers prefer grass stands for egg-laying. Corn planted into wheat stands which were too poor to keep may be at risk for armyworm. Cutworm moths like to lay eggs on dense, low-growing weeds like chickweed. Once corn plants have five fully emerged leaves (leaf collars visible) the threat for severe stand reduction from cutworms is passed.

European Corn Borer

In many areas of the state, the first generation of European corn borers (ECB) have heavily infested corn. Michigan has two generations of ECB in most of the lower peninsula. Fields infested with the first generation generally will not have an economically damaging level of second generation ECB. The moths that lay eggs for this first generation are attracted to the tallest corn in an area but will also lay eggs on smaller corn when taller plants are not available.

Fields that have not been checked for corn borer feeding damage should be checked immedi-

ately as reports of 100 percent infested plants have been common. Each larva, up to a maximum of three, entering the plant may reduce yield by 5 percent. The scouting method and formula for determining the need to treat for first generation corn borers is given below.

The first sign of feeding is small, whitish areas on the leaves where the top green layers of tissue have been removed and the translucent bottom layer remains. This type of damage is called "window paning." Feeding that occurs in the rolled up whorl area results in "shothole" patterns across leaves as they unroll.

A brown discolored area with an entrance hole on the leaf midrib is evidence that tunneling has started. Brownish, moist, sawdust-like excrement (frass) can be found at these entry holes on the leaves or where they have entered the stalk. Insecticide applied after the stalk has been entered will not kill the larvae.

Normally, the tallest corn in an area is the most attractive for the egg-laying moths. Eggs will also be laid on smaller corn if that is all that is available in the area. Small plants, less than 15" in extended leaf height, generally do not support the larvae. There are always exceptions, so do not ignore the potential for corn borer infestations in small corn.

Begin by checking the tallest (earliest planted) corn first. Choose five random locations of the field and check the whorl leaves of 20 consecutive plants in each area (100 plants/field) for feeding damage. Keep a count of damaged plants in each area and record this number. Then choose two damaged plants in each of the five areas (10 plants/field) and examine them for larvae.

Grasp the top of the whorl and pull it out of the plant, unroll the leaves and look for whitish larvae with dark heads. Newly hatched larvae are 1/8" long. Count the number of live borers found and record this number. (Note: use "3" for any plant in which three or more live borers are found, additional borers in a plant do not significantly increase

damage). Plug the information from above in the following formula:

(proportion of plants damaged) × (average # of larvae per plant, max of 3) × (expected yield in bu/A) × (expected price per bushel) × (expected control) × (0.05) - (cost of control/A) = dollar return per acre

Fill in the yield and price you expect and the level of control anticipated, ranging from 50 percent for liquid insecticides to 80 percent for granular materials. If experience tells you that you can achieve greater than 50 percent control with a liquid insecticide then use the appropriate number. (Use nozzles and pressure that will give large droplets that roll down into the whorl.)

Multiply all these together then multiply by the 5 percent loss per larva per plant. Next, subtract the cost of control from this figure to get the dollar return per acre. Negative results mean that an insecticide treatment is not economically justified while a positive result shows the dollar benefit that would be derived from an application.

Example:

75 out of 100 plants damaged = 0.75
25 larvae found in 10 whorls = 2.5 larvae/plant
110 bu/A yield expected
\$3.50/bu
0.50 expected control for liquid application
(0.75) × (2.5) × (110) × (\$3.50) × (0.5) × (0.05) - (\$12) = \$6.05 profit/A

Many fields planted in late May and early June were either unattractive to the egg-laying moths or were too small to support the young ECB larvae. However, these late-planted fields are at a high risk for damage from the second generation of corn borer. Scouting for second generation ECB requires looking for eggs on the plants. A detailed scouting procedure and treatment decision worksheet will be available at local Cooperative Extension offices.

Corn Rootworm

The cool spring soil temperatures will probably result in a delayed corn rootworm egg hatch. In

addition, excessive soil moisture in many areas may have contributed to a loss of soil applied at-planting insecticides, through leaching or degradation.

Fields which had a rootworm insecticide applied at-planting in early May might not have a high enough dose of insecticide remaining to protect roots when the rootworm larvae begin feeding. A layby application for corn rootworm may be justified in fields where last year's adult rootworm counts indicated the potential for a high larval population and this year's crop was planted during the first two weeks in May.

To check insecticide effectiveness examine the roots of plants from several areas of the field. This is not an easy task, requiring positive identification of the corn rootworm larvae and determination of its age to predict the expected length of time before feeding ceases. Where 3 or more corn rootworm larvae are found feeding per plant, a layby application could be warranted. Prior to making a layby application, check the insecticide label for the maximum allowable application rate per season.

Leafhoppers and Dry beans

Late-planted dry beans will potentially be exposed to high populations of potato leafhoppers at an early stage in their growth. Examine plants for leafhoppers as soon as the unifoliate leaves expand. The threshold level on unifoliate stage dry beans is one potato leafhopper (adult or nymph) per every other plant.

With the emergence of the first trifoliate leaf the threshold becomes one per trifoliate. Do not wait until the signs of leafhopper feeding are present to make an insecticide application. Once the characteristic yellowing and cupping of the leaves is seen, much of the damage has already taken place.

What, if any, insect problems actually develop this season will be determined by many factors. The only way to stay on top of the situation in your fields is to regularly visit them, hopefully keeping you one step ahead of any potentially serious problems. ■

Weed control in late planted soybeans

by Karen A. Renner

Wet weather has delayed soybean planting in many areas of the state. The following factors should be considered when planning weed control in these soybean fields where planting has been delayed.

Crop Rotation: Remember many soybean herbicides have crop rotation restrictions. *Wheat cannot be planted for three months after Classic or Synchrony and for four months after Pursuit, Scepter or Reflex applications.* Therefore wheat could not be planted until very late in the fall if any of these postemergence herbicides are applied to soybeans in mid to late July.

Weeds: Many will have germinated prior to planting. Lambsquarters will be less of a problem in late planted soybeans. Giant foxtail, redroot pigweed, common ragweed, velvetleaf and black nightshade are still germinating in the field.

Controlling annual grasses: There are

many herbicide options for controlling grasses. The least expensive option would be to apply a post-emergence grass herbicide such as Assure II, Select, or Fusion. These herbicides cost less than pre-emergence applications of Lasso, Dual, or Frontier. (We do not suggest applying Prowl this late in the season because of a concern for rotation crops). Grass pressure will be less in late-planted fields.

Broadleaf weed control: *Wheat cannot be planted for four months following Lorox, Lexone/Sencor, Pursuit, Canopy, or Scepter (Broadstrike/Dual is 4.5 months).* Corn planting in 1997 would not be restricted by these herbicides (Canopy has the longest rotation interval of 10 months; Scepter is 18 months in all counties in Michigan except the southern two tiers). Therefore if corn is the planned rotation crop there are many pre-emergence as well as post-emergence broadleaf weed control options. Lorox will control small seeded broadleaf weeds. Velvetleaf and cocklebur will not

be controlled and black nightshade will only be suppressed. Lexone/Sencor will control some broad-leaf weeds but not black nightshade. Please consult the weed control guide for further information.

Inexpensive weed control: On late plantings weed pressure is less and we don't want to delay the crop. Many of the "broadleaf herbicides" also control grasses. An application of only Sencor or Canopy or Pursuit pre-emergence will control many broadleaf weeds and suppress grasses.

Inexpensive weed control options include:

- applying a 1/2 rate of Turbo (Dual + Sencor) and POST as needed; and

- apply only Canopy or Sencor or Lorox or Pursuit and POST as needed.

Inexpensive total POST options include:

- Storm or Galaxy (premixtures of Basagran and Blazer) (Storm contains 1 pt/A of Blazer and will setback annual grasses more than Galaxy); and
- Pinnacle + Cobra (grasses will not be controlled). These POST treatments can delay bean growth somewhat and applying late in the afternoon/evening will reduce soybean burn.

This list is not meant to include all weed control options, but to give some suggestions. Please consult the weed guide for further information. ■

Manage soil compaction now to maximize yield potential

by Paul Marks, Monroe County

Has it appeared that the soils on your farm are more compacted after the heavy rains? Does management of your crop allow for cultivation? Have you thought about the force that nature exerted on your soils during the rains?

Now that the serious rains have subsided, management of the soil to maximize crop production for the remainder of the growing season becomes a priority.

Just think about the magnitude of the weight of the excess rains that fell on your soil. If you received just one inch of rain more than normal in the month of June, every acre of your farm was impacted by a force of more than 100 tons. That's right! An acre inch of water weighs just over 100 tons.

With a little multiplication it is easy to see how much extra energy was applied to compacting the upper portion of soils during this period of rain.

What is the correct management decision to deal with this compaction? Keep in mind that the compaction caused by this rain will generally be shallow, when compared to machinery traffic on wet soils. Shallow rooted crops such as vegetables will respond to cultivation to loosen this upper soil compaction. This cultivation will loosen the soil, allow oxygen to re-enter and will promote the infiltration of moisture when the next rain falls.

If time, tools and crops allow, it would be wise to dig out that old cultivator and put it to use as we attempt to improve the growing conditions for crops following this very serious period of rain. ■

Muck vegetable update

by Mary Hausbeck, Botany and Plant Pathology

The recent rainy weather is very favorable for bacterial blight development on celery. Bacterial blight can be partially kept in check with copper sprays, and should not spread much during dry weather conditions. Kocide DF (2 lb/A) or Copper sulfate 53 W (2 to 4 lb/A) are registered for use on celery and can be applied every 7 to 10 days.

Carrots should be sprayed for leaf blights as soon as they close the rows and form a canopy. Alternaria blight is the most common foliar disease of carrots and can lower yields by reducing the leaf area available for photosynthesis and by destroying the carrot tops.

Older leaves are more susceptible than younger leaves to Alternaria. This fungus survives in or on seed and can overwinter on diseased crop residues in the soil and on carrot tops discarded in spring after storage.

Dew or rain is essential for infection with symptoms appearing 8 to 16 days later. Rovral 50 W (1 to 2 lb/A), Rovral 4 F (1 to 2 pt/A), Bravo 720 (1/2 to 2 pt/A), Bravo Ultrex 82.5 WDG (1.4 to 1.8 lb/A) or Terranil 6 L (1 1/2 to 2 pt/A) are registered for control of Alternaria leaf spot.

Like Alternaria, Cercospora leaf spot damages carrot tops making mechanical harvesting difficult. Cercospora leaf spot occurs earlier in the season

than Alternaria blight. Unlike Alternaria blight, the younger carrot leaves are most susceptible to Cercospora; which is why Cercospora blight is more severe in the early plant growth stages. Epidemics can develop rapidly in late-planted carrots because of spore movement from neighboring fields planted earlier in the season. With the exception of Rovral 50 W, the fungicides listed for Alternaria control will also control Cercospora leaf spot.

Risk of purple blotch on onions is high. Purple blotch lesions quickly become large (the size of a dime or larger) and visible, and can girdle and kill leaf tips. It would be advisable to monitor onion fields for this disease rather carefully and apply fungicides if any evidence of purple blotch is seen. Rovral 50 W (1 1/2 lb/A) or Rovral 4 F (1.5 pt/A) provide excellent purple blotch control. Chlorothalonil (Bravo, Terranil) and mancozeb (Dithane M-45, Manzate 200, Penncozeb) also provide good control.

Weather has also been favorable for development for leaf blight on onions. Chlorothalonil (Bravo, Terranil) provides excellent control of onion leaf blight. Protection lasts for seven to 10 days. Mancozeb (Dithane M-45, Manzate 200, Penncozeb) and Rovral provide good control. Mancozeb fungicides should be used with a spreader-sticker. Protection from the mancozeb fungicides lasts for five to seven days. Ronilan provides fair control for leaf blight. ■

Long-term solutions to weather hazards

“Those of us in agriculture know we’re going to have a disaster — it’s not a question of if, but when. We just need to figure out how to respond.”

Dr. Gerald Schwab, MSU Ag Economist

An overhaul of the nation’s crop insurance system and the state’s drain code ranked high on the list of recommendations from a recent damage assessment meeting held at the Michigan Farm Bureau center in Lansing. Over 40 agricultural leaders representing commodity groups, governmental agencies, elected officials, agribusiness and Michigan State University attended the meeting to provide crop status reports and to discuss short- and long-term solutions.

MFB President Jack Laurie said the heavy spring rains, if nothing else, have showcased the serious weaknesses of the state’s outdated drain code. He said that added development and the ever-growing number of acres being tilled has overwhelmed the drainage system.

“If we don’t address the serious inadequacies of our system, we’ll continue to have these prob-



Tuscola County farmer Dick Starkey planted this field to sugar beets in May, Vista beans on June 20 and hopefully something else after this flooding. He was hoping to salvage one other field of sugar beets that required a 16-inch pump and 15 hours to pump off three feet of water.

lems,” Laurie said. “It’s an 80 year old system designed to move 2-3 inches of rain.”
Tuscola County Farm Bureau President Dick

Starkey experienced the inadequacies of his county’s drain system first-hand. Nearly a third of his 1,800 acres were replanted, some twice, due to

heavy rains and overflowing drains. “It isn’t the rain; it’s the runoff that’s killing us,” he explained.

Inadequacies in crop insurance are also evident, especially for dry bean producers who were hoping to get the planting date extended beyond June 25. Although there are late planted provisions contained in CAT policies, there are no prevented planting provisions. However, according to state FSA Director Christine White, USDA has agreed to cover prevented plantings of dry beans and sugar beets under the non-insured assistance program (NAP).

According to MSU Ag Economist, Dr. Gerry Schwab, there were only 30,000 total crop insurance contracts on 500,000 acres over and above the minimum catastrophic coverage level. “That means there’s not a lot of acres covered out there,” Schwab warned.

Laurie suggested that the industry revisit the “Revenue Insurance” concept that would guarantee producers that for a premium, they could at least recoup their input costs. He also said there continues to be a need for government support to encourage more producer participation to make the program actuarial sound and affordable at the same time.

Laurie said he hoped the weather extremes of this spring would not prompt the industry to make a hasty decision on the new farm bill and the loss of ad-hoc disaster programs. “I hope that we use this event to develop some long-term solutions for future situations,” he concluded. ■

Gov. Engler submits agricultural disaster request to USDA

Continued from front page

April,” he said. “Normally, during the growing season, we have around 19 inches from the first of April until October.”

Michigan Sugar’s total contracted sugar beet acreage was already down 20,000 acres from the 120,000 acres contracted in 1995 at the start of the planting season. Brimhall estimates that of the 95,000 acres actually planted, 10 to 20 percent would be lost, with yields on the remaining acreage suffering losses of 20 to 40 percent.

“We’ve got quite a lot of seedling disease showing up in the fields from excess moisture,” Brimhall said. “The best thing producers can do now is get those beets cultivated to help dry things out and get the weeds down.”

If and when approved, the agricultural disaster designation would qualify farmers, in affected counties with a 30 percent or larger loss, for low-interest

loans of 3.75 percent, says Charney.

Funds would also be made available through the “Emergency Watershed Program” to help stabilize dikes and drainage basins. Over \$400,000 was made available from this fund to help shore up dikes along the Flint River.

Cost share funds would also be available through the Agricultural Conservation Program to help grade out erosion on farm fields, stabilize stream banks, and to put in flood control measures. A similar program, the Emergency Conservation Program, would also provide additional funding.

Charney said that producers should not confuse the agricultural disaster request with the Governor’s earlier disaster designation of a six-county area that dealt with infrastructure such as reconstruction of roads and bridges, and is administered through the Federal Emergency Management Agency or FEMA.

With that said, however, producers could still benefit from a FEMA designation, if approved. Out of the \$12.5 million worth of damage calculated through FEMA’s Preliminary Damage Assessment effort, almost \$5 million was attributed to damage of county drains, rivers and creeks.

Charney advises producers with questions regarding the status of disaster program to contact their local FSA office. ■

Counties in Disaster Request	
■ Arenac	■ Lapeer
■ Bay	■ Midland
■ Berrien	■ Saginaw
■ Genesee	■ Sanilac
■ Gratiot	■ St. Clair
■ Huron	■ Shiawassee
■ Isabella	■ Tuscola



After heavy rains pummeled the Saginaw Valley and Thumb regions for the third time, MDA Director Gordon Guyer met with area farmers on June 26 to assess the damage.

Heavy rains cause nitrogen losses

by Maury Vitosh, Crop and Soil Science

Heavy rains have caused much concern about how much nitrogen has been lost and whether supplemental nitrogen fertilizer should be recommended. The wet weather and saturated soil conditions have undoubtedly caused some nitrogen loss due to leaching on sandy soils and denitrification on fine textured soils.

The rains came at a bad time because much of the organic N and ammonium N in the soil had just been converted to the nitrate form of N. Only those fields which received ammonium forms of N less than one week prior to the rains would be safe. Earlier rains were not as damaging because most of

the N at that time was in the ammonium form due to cool soil conditions.

A simple scorecard has been devised by Mike Schmidt, Extension Soil Scientist at the University of Minnesota, to help decide if supplemental, or extra N is needed. I have modified the scorecard for use in Michigan under the current conditions. The scorecard is for use only on those fields where all of the N, normally applied, was applied prior to the rains. It should not be used for those fields yet to be sidedressed. Keep in mind that good judgment is still very important when using this simple decision aid. ■

Factor 1: What nitrogen product was used?			
	UAN 28% N	Urea 46% N	Anhydrous Ammonia without a nitrification inhibitor
Score:	4	3	2
Factor 2: When was the fertilizer N applied?			
	Before June 1, 1996	June 1-10	Since June 10
Score:	4	3	1
Factor 3: What has been the predominate soil moisture status in the field this spring?			
	Standing water/saturated	Wet	Normal
Score:	4	3	1
Factor 4: What is the crop’s current condition?			
	Chlorotic/ >16" tall	Chlorotic/ <16" tall	Green/ <16" tall
Score:	5	3	2
Now: Total the score for the four factors and use the following guidelines.			
Less than 10	11-13	14 or more	
No supplemental N is recommended	Reevaluate in 4-7 days	Add an additional 40-70 lb N/acre	
The reevaluation option is only viable until you no longer have sidedressing options. Research from Illinois has found that 50 lbs. of supplemental N/acre was satisfactory for a wide range of conditions.			

USDOL directed enforcement program

The US Department of Labor is undertaking a Directed Enforcement Program targeting agricultural operations throughout July according to Craig Anderson, manager of the Regulatory Compliance Assistance Program (RCAP). The program will resume again in September narrowing the investigations primarily to vegetable operations with a focus on tomato operations.

Directed Enforcement Programs are initiated on a national basis for the purpose of reviewing and investigating particular industries suspected of having violations of the Fair Labor Standards Act, Migrant and Seasonal Agricultural Worker Protection Act, Child Labor Standards and other laws enforced by the department. The enforcement program is not an indication serious violations exist in Michigan rather it suggests violations have been documented in other production areas.

An operation subject to review or inspection can expect a request for labor records and Form I-9s for the current production cycle and possibly up to three years.

Employers who are covered by the Fair Labor Standard Act, must create and maintain the following payroll records:

- Name in full, as used for Social Security
- Home address and zip code
- Date of birth, if under 19
- Gender and occupation
- Time and day the workweek starts

- Regular hourly rate of pay per hour, day, week or piece, commission on sales, or other basis, and “non-regular” payments (sick pay, holiday pay, etc.)
- Total hours worked each workday (including persons paid by piece)
- Total hours worked each workweek
- Total daily or weekly straight time earnings
- Total overtime or premium pay
- Total additions to or deductions from wages each pay period including the date, amount and nature of addition or deduction for each employee
- Total wages paid each pay period
- Date of payment and pay period covered

For employees hired directly by an employer, the Forms I-9 must be retained for three years after the date of such hiring or one year after the date that the employee’s employment is terminated, whichever is later. This requirement also applies to the state employment agency employee certifications. In the case of employees recruited or referred for a fee, the individual or entity doing the recruiting or referring must retain the forms for three years after the date of recruiting or referral.

This program is in addition to the normal enforcement procedures of the department. Investigations of complaints, by legal action and other traditional enforcement activities will continue as usual during these Directed Enforcement Program periods. For more details contact Anderson at 800-782-6432. ■

General Mills joins cereal battle

General Mills reacted to Kellogg’s first salvo in the current “cereal wars” by announcing it is cutting prices by an average of 11 percent on many of its leading brands. General Mills said the reductions will affect 20 brands, or 40 percent of its sales. Besides the price cuts, General Mills will boost

the size of packages for seven cereals by an average of 11 percent without raising prices.

A week earlier, Michigan-based Kellogg’s, the nation’s largest cereal company, announced it was slashing prices an average 19 percent on two-thirds of its domestic brands. ■

Producers to get first look at new technology

Roundup Ready 1996 Michigan Tour to focus on Roundup Ready soybean at local field day events

Thanks to 15 years of research in biotechnology, many producers will finally get to see the genetically engineered Roundup Ready™ soybean in actual production during local field days slated across Michigan in August.

The Roundup Ready 1996 Michigan Tour, sponsored by Monsanto, Michigan Agri-Business Association, the Michigan Soybean Promotion Committee, and the *Michigan Farm News*, is slated to be held Aug. 18 at Mason, Aug. 21 at Seneca, Aug. 22 at Vicksburg, and Aug. 23 at Frankenmuth. Researchers from Michigan State University, as well as Monsanto will be on hand to conduct the tour and educational workshop on the new technology.

According to Monsanto's Doug Little, the morning portion of the field day will cater to ag chemical dealers and custom applicators, covering topics including: Applicator Technology; Drift Management; Monsanto Soybean Plot Rate Recommendations; and Weed Resistance, Biotech Changes in Soybeans. "Dealers and custom applicators attending this portion of the program will also qualify for a total of three Certified Crop Advisory

credits," he said.

The afternoon portion is designed for producers and gets started with a lunch at noon. Program topics for producers will include: Drift Management; Sprayer Management Changes; Monsanto Soybean Plot Rate Recommendations; Weed Resistance, Biotech Changes in Soybeans; Monsanto Corn Plot Herbicide Comparisons; and a plot tour.

Developed through years of research in biotechnology, Roundup Ready soybeans are genetically improved so they are tolerant to Roundup branded herbicides. That means that producers can now apply Roundup Ultra or Roundup over the top of Roundup Ready soybeans and get excellent weed control to maximize yield potential.

The new technology, which received final U.S. regulatory approval in May 1995 from the Environmental Protection Agency, now means that producers won't be restricted by a tight application window or suffer from a narrow weed-control spectrum, says Little.

"Roundup Ready soybeans will simplify and improve weed control, and help growers to in-

crease their competitiveness through improved efficiencies," Little said. "The application window for Roundup herbicides in Roundup Ready soybeans is the widest available to soybean growers today. Crop safety is unsurpassed and growers will be able to control both large and small weeds."

The event is free of charge but registration is suggested by calling 800-443-3239. For more information about the Roundup Ready 1996 Michigan Tour, contact the Michigan Agri-Business Association at (517) 336-0223 or one of the following Monsanto representatives from the location nearest you:

- Mason — Doug Little (517) 347-1082
- Seneca — Tim Hennessy (419) 882-1082
- Vicksburg — Tami Craig-Walton (616) 467-7306
- Frankenmuth — Bret Sinak (810) 694-9160. ■

The Roundup Ready soybean is one of the first genetically engineered products that will be made available on a widespread basis to Michigan producers, who will benefit from simplified weed management, and ultimately, improved yields and profitability.



Assessing your dairy forage needs

by G. William Robb, Extension Dairy Agent

Many livestock producers have been prevented from planting corn and harvesting hay in a timely manner this past spring resulting in low feed inventories and expected low yields from 1996 crops. Let's evaluate alternatives from what we do know and assess the weather risks for the remaining growing season.

Weather Expectations

One needs to be an optimist about the remaining growing season. We do know that the average date for a killing frost of 30°F for Berrien, Cass and Southern Van Buren counties is Oct. 20. The majority of St. Joseph, Kalamazoo, and Allegan counties average frost date is Oct. 15. Nine out of ten years in Eau Claire, Mich. the first killing freeze does not occur before Oct. 9. Corn planted July 1 has a 90 percent chance to receive 1867 growing degrees and a 50 percent chance of receiving 2,005 growing degrees. Early July planted corn may have 90 days before a

killing frost for those farms near Lake Michigan.

Estimate Feed Needs

For dairy farms you can estimate the feed needs for the herd at 50 pounds of dry matter intake, per day, per milking cow and 25 pounds per dry cow and heifer. This should generously estimate your feed needs unless you have a very high producing herd. To do a more complete feed needs evaluation request a form from your local Extension office that considers each class of livestock for forage and grain needs.

Estimate Potential Crop Yields

This may be the most difficult estimate to calculate. Hay crops have been lost in the field and fourth cutting is not likely in many late cut fields. Tonnage will be high on first cutting that is harvested in late June and July, although quality will be reduced. Second cutting has excellent regrowth with plenty of moisture, so near average alfalfa yields may be possible.

Corn grain production needs to be estimated in at least three stages based on planting date. Figure farm averages for the acreage that was planted on time before May 15. For corn planted in early June reduce yields by a bushel per day planted after May 15. July and earlier plantings will only make corn silage, so take this into consideration. Adjust yields downward for drowned out spots and uneven stands. If you were unable to get good weed control reduce your yield expectation accordingly.

Forage Options

For farms that estimate forage dry matter short of needs, several annual grasses and small grains are options in addition to corn silage. Although corn may not make any ears planted at this late date, forage quality and yield may make corn silage your best option.

Cornell ran a planting test for corn, sudan, sudangrass and millets in New York several years ago. Dry matter yields, under a one cut, silage harvest system, were highest for corn. Corn planted July 1 had corn silage yields about half of late May planted corn.

Sudangrass, hybrid sudangrass, sorghum-sudangrass and forage sorghum all have good to very good forage quality and high moisture content when cut in the vegetative, vegetative-boot stage. Forage sorghum harvested at 70-90 inches requires 130 days to harvest to expect 6-9 tons per acre of dry matter. Millet may provide more grain in the silage but requires 100 days to reach soft dough stage. Corn silage is likely to provide the most dry matter yields and the most digestible energy palatable feed. Refer to MSU Extension bulletin E-2126 *Annual Summer Forage Production in Michigan* for additional information.

Another option on non-planted fields is to summer fallow, apply manure, and plant oats at 4 bushels per acre the first of August. Barring drought conditions, 3-4 tons of dry matter is possible for a mid September harvest. This can be a high energy (0.74NEL) low fiber feed to compliment late cut poor quality hay. This acreage is then available to plant your winter wheat.

Alternative Feeds

High corn prices have resulted in an all time high use of commodities and by-product feed sources by livestock producers in an attempt to stretch corn supplies and reduce feed costs. All energy feedstuffs are priced off corn, and protein feedstuffs are priced off soybean oil meal. Their prices will follow

the corn and soybean markets, plus the impact of local supplies and transportation costs.

Purchased hay may be priced competitively especially if you need the forage in your ration. The hay market is more established as many commodities and by-products are handled through brokers or spoken for by livestock producers. It generally pays to buy the highest quality hay for dairy rations, as the extra cost is small for the protein and energy obtained.

When feeding commodities and by-products the starch content of the alternative ingredient must be considered. By-products result from the grain processing industry and parts of the nutrients have been removed. A feedstuff's energy values may approach that of corn but lack the rumen fermentable carbohydrate. This will change the amount of microbial protein and volatile fatty acids produced. Digestibility varies greatly between by products and will impact feed passage through the animals digestive system. Consult with your nutritional advisors when considering potential corn substitutes.

Herd Management

High feed cost and low feed inventories are a different set of circumstances for most Michigan dairy farms than in the last three to four years. Today's situations may call for different management plans. If you are short feed, put your inputs into the highest return enterprise which should be the dairy cow at \$15 milk prices. Holstein steers are usually only a break-even enterprise on most dairies and should be the first to go.

Some farms successfully contract out heifer raising based on labor and feed availability. Culling criteria should match the farms financial and feed situation. Do not let low cull cow prices drive your decisions.

Feeding the milking herd should be re-evaluated by production groups. Many dairies feed one TMR to the entire herd. Under high feed costs situations, more production groups will save feed and costly supplements on lower production groups. Set feeding goal amounts closer to actual production per group or cow. Continue to challenge early lactation cows to reach the highest production peak possible.

Rethink all your production management systems for what applies to 1996-97 economics. Profitable milk production is the goal. Understand your cost to produce 100 pounds of milk under the new situations you may face. Consult your lender, neighbors and other advisors to make the best possible decisions. ■

Give the farm bill a chance, MFB president says

Farmers shouldn't make a hasty judgment on the Farm Bill based on this spring's weather woes in Michigan, said MFB president Jack Laurie. The Tuscola county dairy farmer, appearing recently on the Michigan Farm Radio Network's "Ag Focus" program with Gov. Engler, praised the planting flexibility provisions that are a key component of the farm legislation.

"Now, unfortunately, as we go further into the summer, we lose a lot of that flexibility just because of the mechanics of getting the crop planted in time to have it get ripe and have a harvest," he said. "I hope that we don't try to judge the Farm Bill on what's happened this year. That would be extremely unfair. Let's give it a chance to operate and let's see just how important flexibility is," he said.

Laurie added that weather extremes this year across the country have highlighted the importance of farmers taking responsibility for their own risk management. He said that many farmers he has talked to said they have some crop insurance. The farmers indicated, Laurie said, that insurance will not make them wealthy but will allow them to manage their way through this year's weather problems.

He also said it was ironic that farmers are seeing some of the highest commodity prices in years but potentially could have little to sell. On the other hand, Americans are not facing a food shortage. "Worldwide food supply stocks will continue to shorten. But I don't think

that's bad. Industry has adopted a just-in-time inventory system, and we are sort of moving in the same direction with agriculture," he said.

Gov. Engler called development sprawl the most serious environmental problem facing the state and indicated his support for legislation that helps preserve farmland resources. "Taxes and regulations have costs, and you can't just say to one farm family that you've got to bear the costs for the good of society," he said. "We want to make sure there's a legacy left behind."

The governor also said that welfare reform would help the agricultural processing industry expand in the state. "It's hard to expand when you tell them we don't have any workers," he said. "Welfare reform to make sure that everybody that wants to work will take those jobs is vitally important." ■



Michigan Farm Radio Network's Pat Driscoll (right) interviews Gov. Engler and MFB President Jack Laurie about a host of agricultural issues, including the farm bill, weather problems and welfare reform.

Delay in release of meat inspection rules

The Agriculture Department has delayed release of new rules that would revamp the nation's meat and poultry inspection system due to White House concerns over how the regulations would affect small businesses.

The White House Office of Management and Budget has voiced apprehension over some sections of the new inspection system, called Hazard Analysis and Critical Control Points. The office re-

cently received a letter from the Small Business Administration stating that small U.S. slaughter plants and other related businesses would be hurt by implementation of the new regulations. This letter was a contributing factor to the publication delay, USDA said.

USDA also announced that it will propose new rules for meat and poultry transportation in the coming months. ■

Discussion Topic P.A. 232 update

August 1996
A monthly resource for the Community Action Groups of Michigan Farm Bureau



PA. 232, Michigan's Agricultural Commodities Marketing Act, is an important tool for helping farmers meet the competitive challenges of tomorrow's rapidly evolving marketplace. This year, the act was clarified and revised to reflect changes in the state's agricultural industry. For example, additional commodities like aquaculture and nursery stock may now organize under P.A. 232.

"The essence of P.A. 232 is promotion and research," said Michigan Farm Bureau Legislative Counsel Ron Nelson. "To the extent that the world keeps changing in consumer taste and production

challenges, P.A. 232 provides a base of funds to promote the product and respond to production challenges."

P.A. 232 originated 30 years ago as a unique self-help program for Michigan farmers. The Act provides uniform procedures for producers to set-up a program of commodity promotion, market development, information, research, produce standards and inspection, determination of surpluses and producer assessments. The programs are producer-funded through checkoffs at the first-point-of-sale.

The apple, asparagus, cherry, corn, dairy product, mint, onion, plums and soybean industries use one or more of the provisions of P.A. 232. Over \$10 million in assessment funds are collected for these commodities each year, according to the Michigan Department of Agriculture.

Cherries and onions are administered by the Michigan Agricultural Cooperative Marketing Association (MACMA). "The biggest benefit of P.A. 232 is that it allows growers themselves to direct a program that will benefit and help stimulate demand for their particular commodity," said Randy Harmson, general manager of MACMA and manager of the Michigan

Red Tart Cherry Growers. "It's successful because it is managed by the growers for the growers."

Harmson thinks commodity producers have benefited from their participation in P.A. 232. "One of the many positive aspects of the program is that, in these days of competing food products, it keeps awareness of the commodity in the eye of the consumer. It also allows for some explanation of how that commodity is produced and delivered to the consumer."

Farmers are often concerned about control of the check-off funds collected under P.A. 232, said Bob Boehm, commodity specialist for Michigan Farm Bureau. He points out that the legislation clearly states that any money collected under the act shall not be state funds and funds shall be disbursed only for the necessary expenses incurred with respect to each such separate marketing program.

"P.A. 232 funds are not a tax and the money is not commingled with state funds," Boehm said. "The Michigan Department of Agriculture is charged with overseeing and auditing, but they have no control and no access to the funds. They simply oversee the grower commissions to ensure

they stay within the guidelines of P.A. 232. The grower commissions make the decisions on how the money is to be invested," he said.

A survey by the American Farm Bureau Federation found hundreds of farmer-financed commodity promotion, research and education programs across the country. In addition to major commodities like corn, soybeans, dairy and pork, they included kiwi fruit, raisins and pistachios in California, citrus in Florida, crawfish in Louisiana, wild rice in Minnesota, trellis tomatoes and yams in New York, filberts in Oregon and flax in South Dakota. ■

Discussion Questions

1. What is the biggest benefit for farmers resulting from a commodity check-off?
2. What, if any, problems have arisen from commodity check-offs?
3. What other Michigan commodities should be under P.A. 232 and have check-offs?

Beans from Michigan farmers will fuel the Olympic dream

by **Mary J. Gawenda**
Michael Johnson may be able to sprint faster. Jackie Joyner-Kersey may jump longer. And the royal family of Spain may be healthier.

These people and others attending the 1996 Olympic Games in Atlanta, Ga., will have Michigan's dry edible bean farmers and the Michigan Bean Commission to thank in part for their health and fitness.

More than 260,000 pounds of dry beans and several tons of canned beans — all grown and harvested in Michigan — will be served in Olympic dining tents for athletes, international diplomats and other guests to enjoy, said Dale Kuenzli, Bean Commission executive director.

"We've paid more attention in past years that beans are very important to athletes," Kuenzli said. "So we thought we'd jump on that news and become part of the training table of tomorrow."

The Bean Commission set out to donate Navy and Black beans grown in Saginaw, Gratiot, Isabella and other counties. Red Kidney beans produced in Montcalm, Alpena, Sanilac and other counties and Pintos from Tuscola and other counties were donated. And various other dry and canned beans from Michigan were delivered for Olympian consumption.

But donating tons of beans to the Olympics isn't an easy chore, as Kuenzli and others found out.

"It was very tough to get through (to the Olympic food coordinators) but once we did, the chef was very excited," said Susan Zwerk, vice president of Parsons and Maxson, the firm handling commission advertising.

After several failed attempts, Zwerk reached Olympic Chef Kelly Alexander who said the menus were already approved by the International Olympic Committee and that beans were a popular item among the dishes being served. Alexander also told Zwerk he was anxiously awaiting the donated shipment.

Alexander was familiar with the quality of Michigan beans and knows the importance of serving the fat-free, vitamin packed legumes, he said.

"Beans are a very important part of athlete's diet and they know that," Alexander said from his kitchen in Olympic Village.

Beans are rich in complex carbohydrates,



Michigan Bean Commission members with Olympic-bound dry beans: (left to right) Gene VanDriessche, Stuart Reinbold, George Thorp and Mike Zwerk, chairman.

which are used for immediate energy or can be stored in the muscles for later energy use, said Patti Bazel Geil, a nutrition consultant and contributing writer to *The Bean Bag*, the commission's newsletter.

Geil says Olympic athletes will be "carb loading" several days before their events and that many athletes will be eating Michigan beans to help fulfill their dietary needs.

"Beans are a nutritious powerhouse and they have lots of nutrition benefits," Geil said. "The slow rate of digestion and absorption of dry beans ensures that energy is available for the athlete when it's needed."

Although the average American consumes only about seven and a half pounds of beans a year, beans are often a main dietary source among many international guests.

"They're important part of the diet and a meat alternative," Alexander said.

Dining guests will have several bean entrees to select from, such as refried beans, from hanging menus written in English, French, Spanish and pictographs. Buffets will offer mixed bean dishes in the four dining tents at Olympic Village.

Although Kuenzli and other members of the bean commission won't be in Atlanta to celebrate with athletes and savor the sweet taste of victory, Kuenzli said he hopes everyone enjoys the taste of Michigan beans. ■

ZFS to showcase new soybean processing plant July 31

Zeeland Farm Soya, a division of Zeeland Farm Services, will be holding a ribbon-cutting ceremony to dedicate their new soybean processing plant — Michigan's first soybean extraction facility.

The ribbon-cutting ceremony will start at 4 p.m. on Wednesday, July 31, 1996. Speakers include Dr. Gordon Guyer, director of Michigan Department of Agriculture; Keith Reinhold, executive director, Michigan Soybean Promotion Committee; and Clifford Meeuwsen, president of Zeeland Farm Services. Bob Craig, director of ag policy and special projects, Michigan Department of Agriculture, will serve as master of ceremonies.

Other community, county, state and federal officials have been invited, as well as farmers, present and potential customers, those instrumental in the plant's construction and others involved in making this plant a reality, agricultural and educational leaders, and members of the media.

The ceremony will include informational tours, dinner and prizes. Attendance is by confirmed invitation. Additional invitations can be arranged by calling Zeeland Farm Soya at 616-772-9042.

Initially, the soybean processing plant will convert six million bushels of Michigan-grown soybeans into 140,000 tons of soy meal for the west Michigan poultry, hog and dairy industries. Seventy-million pounds per year of soybean oil will also be produced for commercial and consumer products. In addition, the hulls will be used in the animal feed industry as another by-product from this plant, which will utilize the whole bean.

Zeeland Farm Services (ZFS) is a service- and product-oriented business serving the agricultural customer for over 40 years. The family operation was started by Robert G. Meeuwsen in 1950. Origin-

nally named Meeuwsen Produce & Grain, the operation bought, sold and transported produce, grain and feed products in a three-state area.

In 1985, management of the grain and farm services division was turned over to sons Arlen and Cliff Meeuwsen. The business was expanded to a five-state area, which required a fleet of 35 trucks. The elevator was expanded to a million bushels storage and a feed division was added. ZFS now employs over 65 people.

Over the years, one of the primary components of the business was the transportation of soybeans out of the state of Michigan into Indiana or Illinois and then transporting soy meal, a by-product of soybeans, back to Michigan and distributing it to Michigan agricultural customers. This is a round trip of about 500 miles. For 15 years, ZFS has been studying the possibilities of building a soy meal processing plant in Michigan. In the past, they thought the supply of soybeans and the quality would not be enough to justify a profitable sized plant.

That's changed dramatically in recent years however. Michigan has produced soybean crops that compare in quality and yield with the top-producing states in the country. ZFS believes a processing plant in west Michigan, with its expanding need for high protein animal feeds, is a prime location.

ZFS estimates that a soy meal processing plant in west Michigan will benefit the local economy by \$5 million to \$10 million per year and more in the years to come, as transportation costs increase.

This plant will employ as many as 25 full-time, highly skilled people plus at least 10 support jobs. There are no other soy processing plants in Michigan, so ZFS plans to recruit and train people from all over Michigan. ■

Engler appoints Porteous to MSU board of trustees

Reed City attorney David Porteous has been named by Gov. John Engler to finish out a term vacated by former MSU Trustee Russ Mawby who resigned recently to spend more time with his ailing wife. Porteous is an attorney and president of Porteous and White PC Law office and also serves as counsel with Varnum, Riddering, Schmidt and Howlett of Grand Rapids.

During a recent news conference to announce his appointment, Porteous advocated increased emphasis on education, effective use of taxpayer dollars, and improved access to education through new technology. "I believe that MSU must be an institution that values clear performance goals of its students, its faculty, and staff. MSU's educational objectives must be second to none," he challenged.

Porteous has served as chairman of the Michigan Strategic Fund; vice chairman of the Michigan Economic Growth Authority; a member of the State Department of Corrections and as a Special Assistant Attorney General. He currently serves as a director of the Jackson National Life Insurance Company of New



MSU President M. Peter McPherson with newly appointed trustee David Porteous.

York and First Michigan Bank of Reed City. He has also served in various community leadership positions for the Chamber of Commerce, Rotary Club, Osceola County Community Foundation, United Methodist Church, Junior Achievement and Boy Scouts. ■

Michigan Farm News Classified

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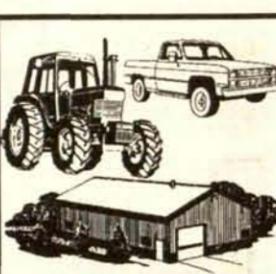
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Precision Agriculture Yield monitoring challenges assumptions on crop production

by Neil R. Miller

Yield monitoring will be the first step many farmers take into GPS-based technology. As I outlined in my June 15 *Michigan*

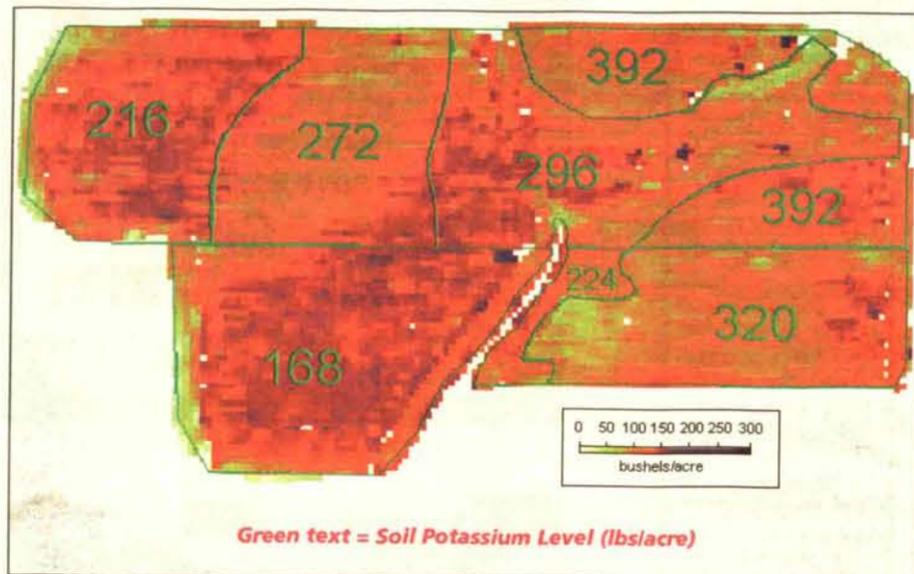
Farm News column, yield monitors can be used to identify critical factors limiting crop yields. Producers can then focus their management energy on identifying solutions which will increase profitability.

Some of the larger trends emerging from this process are rather surprising and have profound implications for how we manage crops. I recently attended the Third International Conference on Precision Agriculture in Minneapolis where many of these issues were discussed. The following sections combine my personal observations with gleanings from academics, agri-business personnel and farmers around the globe.

■ **Soil fertility is not the primary force driving crop yields. In fact, quite often historical yields determine soil fertility, not vice versa!** Yield monitor data often show that the *biggest* yielding areas of a field have the *lowest* P & K levels, while the *lowest* yielding spots have the *biggest* P & K levels (see figure at right).

Although this observation often surprises people at first glance, its explanation is actually simple. For years producers have applied fertilizers uniformly across fields. However, crops remove these elements at low rates where yields are lower and at high rates where yields are higher (see table at right). Thus, fertility levels tend to build up where yields are low and drop where they are high.

There are of course exceptions to this rule, but more often than not the factors limiting yields in poor areas are something other than fertility. Profit-



Potassium levels in this Michigan corn field have built up in the historically less productive areas, and dropped where yields were higher.

Table 1
Nutrients Removed in Harvested Portions of Agronomic Crops

Crop	Unit of Yield	Nutrient removed	
		P ₂ O ₅	K ₂ O
—lbs per unit—			
Corn grain	bushel	0.37	0.27
Corn silage	ton	3.30	8.00
Soybeans	bushel	0.80	1.40
Wheat grain	bushel	0.63	0.37
Wheat straw	ton	0.09	0.91
Alfalfa	ton	13.00	50.00

Source: Tri-State Fertilizer Recommendations for Corn, Soybeans, Wheat & Alfalfa

able site-specific fertilizer management will generally call for *reducing* fertilizer rates in poorer areas and *increasing* them in the higher yielding spots.

■ **Field topography and associated water dynamics are often the dominant factors determining crop yields.** The biggest lesson I learned from working with yield monitors this past fall was that even in a year without excessive moisture, poor drainage has a profound effect on crop yields. This year's heavy rains will undoubtedly amplify these effects many fold.

A consensus seems to be emerging among many investigators that we should use landscape characteristics (hills, slopes and bottoms) as our primary management units in site-specific crop management. In coming years we may see landscape sampling replace square grids as the method of choice for GPS-based soil sampling and variable rate fertilizer (VRT) application.

■ **Yield variability from year to year generally outweighs within-field variability.** Conventional wisdom assumed that several years of yield monitor data would identify high and low yielding areas of each field, and that these data could then be used to establish yield goals for VRT fertilizer applications. However, year-to-year variability has made this ideal more difficult than anticipated. A sandy ridge, for example, may produce heavier areas of a field in a wet year, but yield poorly in years when moisture is limiting.

Shifting our attention from square grids to landscape characteristics, as described above, should help us identify areas of fields which vary from year to year. However, the task of developing location-specific yield goals on which we can base VRT management decisions within fields will be much more challenging than most of us anticipated.

How should these trends affect your farming operation? Yield monitoring will challenge many of our assumptions and draw attention to the factors which most greatly impact production. Remember, however, that the benefits of yield monitoring will only pay off in operations resilient enough to take decisive action in response to the issues it raises. ■

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Don't try this at home

The Cabbage Soup Diet is once again catching on as the latest craze in dieting, according to the *Chicago Sun-Times*. Nutritionists, however, warn that the concoction isn't the way to go about shedding those unwanted pounds.

The Cabbage Soup Diet, also called the Dolly Parton diet, consists of a supposedly fat-burning soup of a half dozen green onions, half a head of cabbage, diced tomatoes, green peppers, scallions, celery, onion soup mix and V-8 juice. Each day, the diet calls for adding supplements, such as "eight bananas and as many glasses of skim milk as you want."

Nutritionists say the soup has too much sodium and cholesterol and could cause high blood pressure. Oh, they also say the soup produces some bad side effects, like gas and indigestion, not to mention bad breath.

According to *Sun-Times* columnist Richard Roeper, the diet doesn't work in the long run. "You can drop some quick water weight, but unless you're committed to the foul-tasting cabbage brew for the rest of your life, as soon as you return to your 'normal' diet, odds are about 100 percent that you'll put the weight back on." ■