Engler submits agricultural disaster request to USDA

Farmland and Open Space Preservation Act updated

T he 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 PA 116. The following is a summary of the amendments:

- 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, pleasures 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 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 use" 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 in 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.

Continued in Capitol Corner, page 3

President candidate Bob Dole named "Friend of Agriculture"

B ob Dole was honored by Michigan Farm Bureau with its "I Am a Friend of Agriculture" endorsement at a Capitol Corner meeting today. "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 were above typical growing season totals, according to Phil Brimhall, chief agronomist for Michigan Sugar Company. "During June we had over 10 inches of rain in the Caro district, and as much as 22 inches in some areas since the first of the month," Charney said.

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Producers to get first look at new technology
Discussion Topic: PA. 232 update
Yield monitoring challenges assumptions on crop production

Sell products and services in the Michigan Farm News classifieds—Page 18
Dairy Labor Workshop slated for Aug. 15

To assist growers for this growing and harvest season, Michigan State University Extension has set up an 800 emergency Crop Adviser telephone system to report information on crop alternatives, planting dates, spraying, harvesting alternatives, post-emergence weed control, and feeding damaged crops, may call 400-415-MSUE.

Dairy Labor Workshop slated for Aug. 15

I'm like most dairy producers, finding and keeping good help ranks as one of the biggest dairy-related challenges of running a successful dairy operation. In response to numerous requests from dairy producer 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 Reeling Biological Station from 10 a.m. to 3:30 p.m.

As program manager, Stan Moore, Dairy Area of Expertise Agent for Eaton, Calhoun and Barry Counties, the program is patterned after last year's successful fertilizer management workshop, and will feature dairy producers discussing each labor management issue based on their own farm operation, and experience, along with closing comments from former MSU Ag Labor Specialist Al Shagley discussing the farm managers' own experiences on job recruitment and keeping the best help.

Producers confirmed as speakers thus far include:
- William Johnson: St. Johns - Labor Recruitment
- John VanHoucke, Coldwater - Managing Part-time labor
- Jim Miller, Delton - Dairy Labor Training
- Leifert Evans, Jackson - Employer Retention

There is $15 registration fee for required materials. The cost is expected 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.

Jack Laurie, President
Michigan Farm Bureau

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 pounds, according to the Michigan Agricultural Statistics Service.

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

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

GUYER ANNOUNCES MDA RETIREMENT

Gordon Guyer is widely known and respected for his long and distinguished career in agriculture, education and natural resource development. Michigan's natural resource community, and specifically the Michigan Association of Governing Boards, will be significantly different in the years ahead, Gordon says. Gordon Guyer will retire from the position of MSU's Distinguished Faculty Award, the Distinguished Faculty Award from the Michigan Association of Governing Boards, and the Distinguished Faculty Award from MSU's Distinguished Faculty Award.

The director of agriculture is appointed by the Michigan Commission on Agri-Business Association this summer are continuing their pesticide container recycling program. Participating dealers are collecting the containers and scheduling pickup systems at specific locations. Residential and institutional users will coordinate scheduled pickups with cooperative distributors, including Grower Service, Helma Chemical, and Terra International, who will turn the containers to grinds 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 schedule permits. Containers will be inspected by dealers to ensure the vehicles at each facility are being inspected before being accepted for recycling. For more information, contact the Association office at 1-877-568-2224 or your local pesticide retailer.

CATTLE LIQUIDATION HIGH

Producers are being forced to liquidate their cattle at a steady rate, similar to those of the late 1970s, due to drought and related terrible grazing conditions, the Agriculture Department said. The people you elect this year may be the ones who will determine the future of agriculture in our country.

MSU TO OFFER GLYNN McBRIIDE 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, becoming active in promoting Michigan agriculture.

To be eligible for the Glynn McBride — Michigan Commission for Cooperatives Scholarship fund, students must be enrolled in one of the following degree programs: Agriculture and Agri-Business, Animal Science, Crop and Soil Sciences, Horticulture, or Food and Science and Human Nutrition.

Students must meet certain minimum requirements: achieve sophomore status or higher, be enrolled in an undergraduate program in the college, maintain a 3.5 grade point average and have an interest in a career with Agriculture Cooperatives.

Deadline is Aug. 1 and interested candidates should contact: MSU Farm Bureau Reserve office at (517) 355-1934 or write: Dr. Richard Brandenburg, Associate Dean, 121 Agriculture Hall, M.S.U., East Lansing, MI 48843-1059.

HEDGE-TO-ARRIVE FALLOUT CONTINUES

One of the biggest names in farm commodity trading face lawsuits from Mississippi farmers for failing to old rice in 1993 with 26 percent of the market share. Archer Daniels Midland Co. and Gengal Inc. have been accused of not disclosing shady trade practices.

Many farmers, hoping to sell a good return from their crops, hedged that corn prices would be steady or down. Now, they're leaping to recall high, and now demands are being made that these farms come up with money or go bankrupt on made up commodity contracts. Federal authorities in Chicago and Washington are trying to determine whether fraud was committed and whether federal laws were broken.

Do not forget to recycle those pesticide containers!

REALTORS who are members of the Michigan Association of REALTORS are being asked this summer to continue their pesticide container recycling program. Participating dealers are collecting the containers and scheduling pickup systems at specific locations. Residential and institutional users will coordinate scheduled pickups with cooperative distributors, including Grower Service, Helma Chemical, and Terra International, who will turn the containers to grinds 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 schedule permits. Containers will be inspected by dealers to ensure the vehicles at each facility are being inspected before being accepted for recycling. For more information, contact the Association office at 1-877-568-2224 or your local pesticide retailer.
STATE ISSUE

Primary state belt seats go to Governor

H. 500, sponsored by Rep. Frank Rogener (R-Grand Ledge), would amend language in the state vehicle code and mandate not wearing a seat belt a primary offense. This would allow a police stop 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.

H. 5122, sponsored by Rep. Carl Goodloe (R-Swartz Creek), would increase speed limits on Michigan highways. During the passage of this bill an amendment was added that would require wearing a seat belt a primary offense. The amendment also repealed the penalty limit on the enforcement of regulations for seat belt violations.

MFB Position: Support the bills.

MFB Contact: Ron Nelson, ext. 2043.

STATE ISSUE

Anti-disparagement food bills awaiting House action

H. 2531, sponsored by Rep. Michelle McNemar (R-Lake Leelanau), is a new section of law that provides for the award of damages for farm caused by false or misleading statement of fact regarding the identity, type, or quality of a farm and all amounts; this gives the Department of Agriculture and Rural Development authority to move for financial auditing, and detail the action to be taken.

MFB Position: Support the bills.

MFB Contact: Contact Tim Goodrich, ext. 2044.

STATE ISSUE

Affirmative action bills introduced

H. 4504, sponsored by Rep. Potter Greenman (R-Beaver), would add language to prohibit employers, employment agencies and educational institutions from allocating, selecting, or giving preferential treatment on the basis of gender, age, sex, height, weight, or marital status, etc.

MFB Position: Support the bills.

MFB Contact: Ron Nelson, ext. 2043.

STATE ISSUE

Manufacturing Milk Act and the Fluid Milk amends finalized

H. 5879, sponsored by Rep. Mike Green (R-Mayfiled), and H. 5980, sponsored by Rep. Thomas Green (D-Bay City), would amend the manufacturing milk act of 1993 the Senate Appropriations Committee, Sen. Hoffman's transportation budget package was never considered by the full Senate Appropriations Committee. The final bill maintained P.A. 51 and provided a combination of loans, grants, and tax credits.

MFB Position: Support the bills.

MFB Position: Support the bills.

MFB Contact: Ron Nelson, ext. 2043.
The House has passed legislation that would revise the Federal Farm Bill. The House approved a $53.1 billion appropriation bill for FY1996, and to $5.15 billion for FY1997. The bill also grants full funding for transition payment to farmers who sign contracts to plant a new farm bill crop in order to receive the transition payment in FY1996. The Senate has also passed legislation to fund the Environmental Quality Incentives Program at $200 million, $2 million for fire blight research, and $4.7 billion for the Incentives for American Agriculture Act of 1996. The bill also increased spending on the Small Business Administration, and the Agriculture Department's Economic Research Service, among other agencies.

The Senate has also passed a $15.2 billion farm bill to provide a $9.2 billion loan guarantee to farmers, and $5.15 billion for transition payments to farmers who sign contracts to plant a new farm bill crop in order to receive the transition payment in FY1996. The bill also grants full funding for transition payment to farmers who sign contracts to plant a new farm bill crop in order to receive the transition payment in FY1996. The Senate has also passed legislation to fund the Environmental Quality Incentives Program at $200 million, $2 million for fire blight research, and $4.7 billion for the Incentives for American Agriculture Act of 1996. The bill also increased spending on the Small Business Administration, and the Agriculture Department's Economic Research Service, among other agencies.

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Buy a new Dodge Truck and pick up a ton of cash.

$500 CASH BACK TO FARM BUREAU® MEMBERS.

As if our Magnum® engine series, overall the most powerful line of pickup engines on the planet, wasn't enough incentive for Farm Bureau members, now there’s an extra $500 in the deal.

That’s $500 back on all 1996 5.9L Magnum V-8 Ram and Ram Club Cab pickups, $500 back on all 1996 Cummins diesel-powered Ram and Ram Club Cab pickups ... and $500 back on select mid-size 1996 Dakota pickups.

The offer includes all 1996 Ram Van and Ram Wagon models, too.

That’s on top of any other national Dodge cash back offer. All you need to do is get a certificate from your state’s Farm Bureau validating that you’ve been a member for at least thirty days. Then stop by your Dodge dealer. Where you’ll discover it pays to be in the Farm Bureau.

*This cash back offer is valid for members of participating Farm Bureaus, expires 9/30/96, and may not be used in combination with any other Chrysler Corporation certificate program or certain other special programs. Ask for restrictions and details. Farm Bureau® is a registered service mark of the American Farm Bureau Federation.
Below the report. The late plantings and cool spring are shown in Table 1. I lowered the planted acres by revised downward).

Of 1.26 billion bushels per acre; I used 1.21 in my analysis, held up after the survey was taken and will likely be revised downward again as feed prices remain high. However, we all know that corn plantings were lower than expected. This level makes any historic allowance pale in comparison.

June 1 corn stocks were just 1.7 billion bushels, leaving us with a 10-12 day supply come September, I don’t counting what may have been harvested so far. In the evening, the S&D supply report is to try and fit the USDA June 12 Supply/Demand report estimates were very close and are shown in Table 3. If the survey is not adjusted, I would hold up pricing more than 15-20 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 some old soy stocks as a buffer.

The May Cattle-On-Foot Report showed place hogs down again as feed prices remain high and cattle prices remain low. However, production has remained high due to the number of animals on feed and the choice/cutout spread keeping weights up despite the high corn prices. Year-to-year production will likely fall back as we go through the summer, but those few foggy days in June and July and the turner will be faster due to heavier placement weights the longer they are on grass. Look for some corn growth over the next week. The middle of August, and fall, but it will take something we haven’t seen yet to get any higher.

Cattle supplies remain high in all regions other than the mountain states where they have been. This will continue to increase production, but may slow growth of some supply. 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 cattle herd will be down significantly. All I would take would make the cow-calf operation profitable again would be a normal 1997 corn yield and a 1 percent decrease in the beef herd. I don’t think anything can pull out the 1996 call crop, but a good corn crop would help.

The June 1 Hogs and Pigs report released June 28 was a shocker. As expected the June 9 and March 96 pig and inventory numbers were revised downward due to the actual slaughter numbers being 2-4 percent above expected. May 20 percent, more than expected. For exempt pig market, was down 2 percent, more than expected, from all year numbers.

March-May farrowing were down 8 percent, June-August intentions were down 5 percent, and September intentions were down 3 percent. However, the March-May pig crop was down only 6 percent as sows pared over time. Up to 60 were down 24 percent on May 2, 1995, down 1 percent, and over 180 were down 3 percent. This means higher than expected hog prices to help off the high feed prices, but also that the small producers are still dropping out rapidly. On June 1, the Indiana breeding herd was 7 percent below the year ago level. The feed prices are very much higher than year ago. Prices will stick 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 or maximum price contract, where they have a call option to protect themselves.

The basic supply and demand outlook for the U.S. and Michigan dairy industry remains the same as in recent months. Feed prices dictate the amount and quality of concentrates fed to animals and lower production per cow are holding milk production behind year ago levels. The dairy production numbers 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 1995 when the production numbers were down when compared to year ago level.

The May 1996 average production per cow of 4.177 pounds was 7 pounds below the May 1995 level. The number of cows on the farms in the major dairies states was 1.9 million head down 67 percent from a year ago. Commercial and cooperative monthly milkings are running approximately 10 to 15 percent higher. It is hard to meet increased consumer demand when there are no more producers to supply 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 being quoted higher than $10 per pound for Grade AA. Prices for nonfat dry milk continue to be higher as available supplies have been rationed and as a result the price continues to hold 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 contacts and 460 transactions.

Continued on page 9

**Table 1 - Corn**

<table>
<thead>
<tr>
<th>Acorns-added/diverted</th>
<th>2.4</th>
<th>6.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acres planted</td>
<td>79.2</td>
<td>71.2</td>
</tr>
<tr>
<td>Acres harvested</td>
<td>72.9</td>
<td>65.0</td>
</tr>
<tr>
<td>Bu harvested acre</td>
<td>138.6</td>
<td>113.5</td>
</tr>
</tbody>
</table>

**Table 2 - Wheat**

<table>
<thead>
<tr>
<th>Acorns-added/diverted</th>
<th>9.2</th>
<th>5.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acres harvested</td>
<td>76.8</td>
<td>61.8</td>
</tr>
<tr>
<td>Bu harvested acre</td>
<td>37.6</td>
<td>35.7</td>
</tr>
</tbody>
</table>

**Table 3 - Soybeans**

<table>
<thead>
<tr>
<th>Acorns planted</th>
<th>61.7</th>
<th>62.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acres harvested</td>
<td>60.3</td>
<td>45.6</td>
</tr>
<tr>
<td>Bu harvested acre</td>
<td>41.4</td>
<td>34.9</td>
</tr>
</tbody>
</table>

**Table 4 - Hogs**

| Acorns-planted         | 209 | 235 |

**Table 5 - Cattle**

| Acorns-planted         | 2,517 | 2,335 |

**Table 6 - Live Cattle & Sheep**

| Acorns-planted         | 4.155 | 4.355 |

**Table 7 - Cattle On Feed**

| Acorns-planted         | 1.485 | 1.685 |

**Table 8 - Feed and Residuals**

| Acorns-planted         | 0.275 | 0.225 |

**Table 9 - Cattle Feed and Residuals**

| Acorns-planted         | 39.5 | 41.5 |

**Table 10 - Feed and Residuals**

| Acorns-planted         | 406.0 | 412.0 |

**Table 11 - Total Feed and Residuals**

| Acorns-planted         | 3.058 | 2.357 |

**Table 12 - Total Feed and Residuals**

| Acorns-planted         | 26.8 | 27.8 |

**Table 13 - Cattle Feed and Residuals**

| Acorns-planted         | 0.258 | 0.252 |

**Table 14 - Cattle Feed and Residuals**

| Acorns-planted         | 0.258 | 0.252 |

**Table 15 - Total Feed and Residuals**

| Acorns-planted         | 0.258 | 0.252 |

**Table 16 - Total Feed and Residuals**

| Acorns-planted         | 0.258 | 0.252 |

**Table 17 - Total Feed and Residuals**

| Acorns-planted         | 0.258 | 0.252 |
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 5.9 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 $737 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.

The table shows the value of "good" farmland increased 8 percent from the previous year. The value of below average corn-soybean-hay land was $1,206 per acre, up 8.1 percent from the previous year. The value of above average corn-soybean-hay land was $1,919 per acre, up 7.3 percent from the previous year. Soybean-hayland was $818 per acre, up 6.8 percent from the previous year.

The average cash rent for above average corn-soybean-hay land was $737 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 strong growth in corn-soybean-hayland is 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 used to switch to non-farm uses in the future with higher expected cash flows than are available from corn-soybean-hay production;
- 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 interest rates have had little impact on land values, although some respondents felt the lower interest rates has 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 among farmers, 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 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 or recreational land uses is significant in many areas and is exerting upward pressure on land prices. The strong Michigan economy is putting upward pressure on the demand for land in residential and commercial uses in the southern lower peninsula. Land values for use as non-farm land are strong in the upper peninsula and northern lower peninsula.

Development pressures 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 3 acre plots for residential 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 returns to crop production.

Land Values 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 increased each year during the period. Low quality corn-soy-bean-hay land increased at a simple average rate of 5.4 percent during the period. High quality corn-soy-bean-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

<table>
<thead>
<tr>
<th>Land Type</th>
<th>Average Value</th>
<th>Corn-S.-Hay Above</th>
<th>Corn-S.-Hay Above</th>
<th>Sugar Beet</th>
<th>Irrigated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Change</td>
<td>81%</td>
<td>5.9%</td>
<td>4.3%</td>
<td>3.3%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Change next 12</td>
<td>5.6%</td>
<td>4.1%</td>
<td>3.3%</td>
<td>3.3%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Average value</td>
<td>737</td>
<td>798</td>
<td>818</td>
<td>1,659</td>
<td>1,422</td>
</tr>
<tr>
<td>Average rent</td>
<td>1,206</td>
<td>1,206</td>
<td>1,206</td>
<td>1,206</td>
<td>1,206</td>
</tr>
<tr>
<td>Average value-to-rent</td>
<td>10%</td>
<td>9%</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Average rent-to-value</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
</tr>
</tbody>
</table>

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 Values from 1991-96 in the Southern Lower Peninsula

<table>
<thead>
<tr>
<th>Year</th>
<th>Corn-S.-Hay Above</th>
<th>Sugar Beet</th>
<th>Irrigated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>5.9%</td>
<td>2.5%</td>
<td>5.7%</td>
</tr>
<tr>
<td>1992</td>
<td>4.3%</td>
<td>3.1%</td>
<td>5.3%</td>
</tr>
<tr>
<td>1993</td>
<td>3.3%</td>
<td>3.1%</td>
<td>3.3%</td>
</tr>
<tr>
<td>1994</td>
<td>3.3%</td>
<td>4.6%</td>
<td>4.8%</td>
</tr>
<tr>
<td>1995</td>
<td>3.3%</td>
<td>4.3%</td>
<td>6.2%</td>
</tr>
<tr>
<td>1996</td>
<td>6.8%</td>
<td>8.1%</td>
<td>7.3%</td>
</tr>
</tbody>
</table>

Table 1 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 increased each year during the period. Low quality corn-soy-bean-hay land increased at a simple average rate of 5.4 percent during the period. High quality corn-soy-bean-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.

Presidental candidate Bob Dole named "Friend of Agriculture"

Continued from front page

The continued work on behalf of regulatory reform, 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 Preferred 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 critized the continu- ing trade barriers to the Japanese market.

"Economic regulations cost the average American family about $6,600 per year," said Dole, in promising regulatory reform. "It costs 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 govern- ment has a role to play, but we need a little com- mon sense," he said.

Delaney's Agriculture Committee would also receive immediate attention in a Dole administration, he told the audience, noting that a "solid major- ity" have had the Senate. And when you pass away your heirs have to sell the property to pay the estate tax," he said.
Late season weed control in corn

Numerous tank-mix combinations are labeled as well. Maximum corn heights and additions for many of these tank mixes are listed on Table 11 (page 66) of the MSU Weed Control Guide for Field Crops, 1996.

Since the guide was published, Dupont has received a supplemental label for Accent + Headline for application up to 24-inch corn (or 6 ft. tall). A revised Accent label was also approved in May which describes several tank mixes with Headline. Tank mixes of Accent plus Headline/Clarity (4/1 pt/A) plus surfactant may be broadcast up to 12-inch corn. In addition, if Basagran/Clarity is used at 1/4 pt/A (2 ft. of corn), crop oil concentrate can be used as the adjuvant.

Selecting the Best Strategy

The first step is deciding how to handle a specific situation. It is important to assess the weed species and size along with the crop stage. This allows herbicide tank mix or tank-mixes that control the weeds present at the time of spraying. Table 11, page 66 of the Weed Control Guide should be helpful in this regard. Remember, if you are unable to get the field sprayed for several days, the weeds will be much bigger when they are treated. West height is critical to postemergence herbicides. For example, Be- ceed alone will control large (up to 12 inch) common ragweed but will only control lambquarters when small. For larger lambquarters, a tank mix herbicide such as Buctril or Clarity 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 domi- nant weed in the field is a large lambquarters, Buctril should be part of the strategy.

Remember that all of the herbicide options have weaknesses. Buctril is only fair on pigweed. Accent will not consistently control lambquarters over 2 inches. Permazene is ineffective on lambquarters and is only fair on smartweed and poor on night- shade. Beceed is only fair on lambquarters. Therefore, tank mixes of preemergence herbicide or, if need be, in-crop herbicide options will often be needed for multi-species infestations.

Insecticide-herbicide interactions

With high numbers of European Corn Borer this year, it is likely that many corn fields will need a foliar-applied insecti- cide for control. There are several insecticide options available including the organophos- phate (O.P.) insecticides Lorsban, Difonate, Gamma, and Danthon. Organophosphate insecticides can inter- act with certain sulfonylurea herbicides to cause severe crop injury. To avoid this prob- lem, 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 and herbicide application.

Table 1 - Maximum crop stage for selected herbicides

<table>
<thead>
<tr>
<th>Herbicide</th>
<th>Maximum Corn Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accent</td>
<td>24 inches or 6-collar</td>
</tr>
<tr>
<td>Beacon</td>
<td>20 inches</td>
</tr>
<tr>
<td>Exceed</td>
<td>24 inches</td>
</tr>
<tr>
<td>Promec 2001</td>
<td>canopy closure</td>
</tr>
<tr>
<td>Buctril</td>
<td>before tassel-emergence</td>
</tr>
<tr>
<td>Resource</td>
<td>10-collar</td>
</tr>
<tr>
<td>Striga</td>
<td>24 inches</td>
</tr>
<tr>
<td>Basagran</td>
<td>no limit</td>
</tr>
<tr>
<td>Atomate</td>
<td>12 inches</td>
</tr>
<tr>
<td>Laddax</td>
<td>12 inches</td>
</tr>
<tr>
<td>Buctril/Mazine</td>
<td>12 inches</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Herbicide</th>
<th>Minimum number of days before herbicide application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accent</td>
<td>3</td>
</tr>
<tr>
<td>Beacon</td>
<td>3</td>
</tr>
<tr>
<td>Rain</td>
<td>7</td>
</tr>
<tr>
<td>Exceed</td>
<td>7</td>
</tr>
<tr>
<td>Scorpion III</td>
<td>10*</td>
</tr>
</tbody>
</table>

Continued on page 9

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 activi- ty 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, Clarity and Ems. In some cases, it may be best to either switch to less risky herbicides or delay treatment until tempera- tures decline. If herbicides are applied, risk of crop injury may be reduced by spraying in early morning (after 7 p.m.).

The following are suggested herbicide treatments under current conditions:

- **Corn Herbicides**
  - Banvel, Clarity, 2,4-D, and 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 - Minimally risk. Do not tank mix with 2,4-D, Banvel, or Buctril.
  - Atrazine, Basagran - Okay to spray.

- **Soybean Herbicides**
  - Post, Poast Plus, Assure II, Fusion, Fusilade DX, Option II, Select, Basagran, Reflex, Pursuit, Scepter - Okay to spray.
  - Pinnacle, Classic - Avoid spraying until temperature is below 85°F.
  - Blazer, Cobra, Galaxy, Storm, Flexstar - Spray after 7 p.m. after tem- perature is below 90°F.
  - Resource - Apply with NIS; apply after 7 p.m.

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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 that do not make rapid growth and herbicide treatment might be effective. Some weeds might not grow beyond the seedling stage. However, many weeds that are present early in the season will have grown to the point where spraying might be needed.

Commodities

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
Breeding weeds (several species including pigweed and lambsquarters).
No spray resistance — Atrazine can be used Corn 10-12 inches Herbicide Options: • Laddik • Oxamyl • Buctril + Atrazine

Situation 2
Broadleaf weeds (several species including pigweed and lambsquarters).
No atrazine can be used Corn 10-12 inches Herbicide Options: • Oxamyl • Laddik • Buctril + Atrazine

Situation 3
Broadleaf weeds (several species including pigweed and lambsquarters).
Annual grasses (no crabgrass present)
Herbicide Options:
• Accent
• Permit
• Exceed

Situation 4
Annual grasses (crabgrass present)
Herbicide Options:
• Banvel (4 ft. oz. Y2-1 pt/A)
• Buctril

Listed below are some general guidelines for directed postemergence application of 2,4-D, Banvel, Buctril, Lornaxane, or Grassmore Extra.

• Direct the spray so that only the lowest two or three 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 (50°) fan nozzles or two nozzles mounted on a double nozzle are the best choices to deliver the desired spray pattern. Drop pipes should be used that are rigid, as the wind may be high during application.

• The spray should be applied when the corn is actively growing to break through. What, if anything, should I do?

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

B. 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 row will bury many of the small seedlings in the row.

Directed Application

Drop nozzles are not popular for many 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, Buctril, Lornaxane, and Grassmore Extra.

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

Buctril and Lornaxane must always be applied as spot treatment wherein it is important to avoid exposure of the wheat to the spray. Both are effective on annual broadleaf weeds, however Buctril has greater selectivity on grasses. Both Buctril and Lornaxane will provide some soil activity, however, they should be used on their foliar activity (broominess) of emerged weeds. Refer to the Buctril label for rotation crop restrictions.

Grassmore Extra is labeled and recommended for postemergence directed application. 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.

Market Outlook

Continued from page 6

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

Weekly egg prices in New York and New Jersey, a large white eggs in cartons are likely to average in the upper 80s through the August, September and December quarter. Prices in the October, November and December quarter will probably ease downward to the mid 80s.

The number of layers on farms in June 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 price chick hatching in the last 7 months up to the corresponding month a year earlier. Layer-egg 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 showing percentage-wise more eggs moving into retail channels than are indicated as producer and sold to wholesalers.

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 hatching because feed ingredient costs are still uncertain with the current growing conditions.

EGGS

by Henry Larzelere

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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 unseasonably and abnormally heavy rains across many sections of Lower Michigan. The heavy rains and earlier cool soil temperatures have combined to prevent planting across large sections of the Saginaw Valley, the Thumb, and extreme southwestern Lower Michigan. Seasonal rainfall totals (since April 1) have reached 15-30 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.

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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 anymore. 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 breakfasts 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 fatty 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 carbohydrates, fiber, vitamins and minerals you need in your diet. "Eggs 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 227 mg cholesterol (current guidelines recommend eating no more than 300 mg of cholesterol daily). Eggs are a good source of protein, but trying them in butter or oil increases the saturated fat potential, so prepare them in a way that does 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, making your own is preferable, as many store-bought muffins are high in fat and sugar.

If you bulk at breakfast, variety may help keep you interested in morning meals. What's for Breakfast? (Appletree Press, Inc., Mankato, MN, 1994) by Houston dietitians Donna Bay and Kathleen Flores offers a number of recipes and menus for quick, low-fat healthful breakfasts, including 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.

Breakfast: Beyond bacon and eggs

**TOP OF THE MORNING TIPS**

- 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, 25 g protein, 8 g fat, 450 calories.
- A toasted waffle spread with 1 tablespoon peanut butter and 2 teaspoons sugar-free jam or jelly. Top with 1/2 sliced banana and eat with 1/2 honey dew melon chunks and skim milk. 58 g carbohydrate, 16 g protein, 12 g fat, 985 calories.
- One slice whole wheat toast topped with 1 tablespoon 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.

For reprint permission, contact the University of Texas Health Letter, March 1996.
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?

1. Freezing kills any bacteria that food may contain.
2. The temperature inside the freezer doesn't matter so long as the food doesn't melt.
3. It's safe to eat food that has freezer burn.
4. Defrosted food should not be frozen again.
5. 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.
6. The quality of meat deteriorates more quickly than the quality of other frozen foods.
7. It doesn't matter whether or not you use containers specifically designed for the freezer.

Answers

1. True
2. True
3. False
4. False
5. True
6. True
7. False

Food can be damaged or spoiled if it is not stored properly. Frozen foods are best preserved in a freezer at temperatures below 0°F. The cold temperature stops the growth of bacteria, and makes food safe to eat for a longer time.

It's important to follow these tips to ensure your food stays fresh and safe:

- Keep your freezer and refrigerator well stocked to prevent overcrowding.
- Use containers specifically designed for the freezer.
- Freeze food as soon as possible after purchase.
- Avoid defrosting food before freezing again.
- Keep the freezer door closed as much as possible to conserve energy and keep food fresh.
- Check the expiration dates on food before consuming.

By following these guidelines, you can ensure that your food remains fresh and safe for consumption.

- True
- True
- False
- False
- True
- True
- False

**Answers**

1. True
2. True
3. False
4. False
5. True
6. True
7. False
A friend of mine says I'm crazy and with anticoagulants—medications designed to something else.

A wider range of foods, including green leafy vegetables, soy products, and whole grains, can restore vitamin K levels to normal. But more than 65 micrograms for women. You can get it in eggs, cheese, cauliflower, broccoli, and tomatoes. Even better, our bodies use some of the vitamin K produced by bacteria in our digestive tract.

Vitamin K is extremely rare. There have been reports of cases caused by certain bacteria. But 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.

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

A friend of mine says I'm crazy and with anticoagulants—medications designed to something else. 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'

The revised version of the 'Exchange Lists for Meal Planning,' a diabetic's basic dietary reference, is now available from the American Diabetes Association for $8.95. The updated guide includes exchange information on sugary treats, since sugar is no longer off limits for diabetes as long as it's part of a planned diet. Call 800-232-0733 to order.

Insect repellant

The content of DEET in commercial insect repellants ranges from 7.5% to 100%. Only 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, pants 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


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 unattended 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 "petites.

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.

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

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Admittedly, chronic stress can cause stomach pain as well as back pain and a host of other physical ills. But cox. “That kind of rise in acid isn’t enough to lead to ulcer development has long been misunderstood. 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. Research has shown that even such highly seasoned foods as hot sauce and jalapeno peppers don’t cause the secretion of more acid than other foods. As for milk, in 1980 it was shown that the beverage raised the pH of the stomach to about 3.8. Like other foods, it increases acidity and irritates the stomach lining. Red rest, hospitalization, and other means of providing relaxation were all encouraged because stress was thought to induce acid to pour out. Alcohol, which might 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 jalapeno peppers don’t cause the secretion of more acid than other foods. As for milk, in 1980 it was shown that the beverage raised the pH of the stomach to about 3.8. Like other foods, it increases acidity and irritates the stomach lining. Red rest, hospitalization, and other means of providing relaxation were all encouraged because stress was thought to induce acid to pour out. Alcohol, which might irritate the stomach lining, was off limits.

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We have established our marketing plan based on the market opportunities and the constraints of the Soybean Marketing Challenge. Our marketing plan established four marketing blocks for pricing decisions. We estimated four blocks at 5,000 bushels 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 opportunities.

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 needed 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 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 discipline in our approach, we bought a $7.50 November Put out on third block of 5,000 bushels of soy, 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 out 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 Sattler

At present, our average short hedge is 7,535 vs. 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 soy 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 $7.50 level.

Soybean Marketing Challenge monthly position reports!

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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!

Single: $18.90 per month • Two-person: $33.60 • Family: $43.05

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MBF's AgriPac Committee in action!

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

The recommendations are based, in part, on review of the candidate's voting record on key agricultural issues, as well as possible interviews at the direction of Al Amy. "The MBF AgriPac Committee then considers the county recommendations in making their final 'Friends of Agriculture' designation," Al Amy said.

Candidates 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 talk with the candidate," Al Amy said. "That's kind of front-line 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 inclusions include the degree of special interest, endorsement, support or oppose legislation in accordance with Farm Bureau policy, and communications with constituents.

According to Al Amy, this meticulous process has earned the AgriPac endorsement a great deal of respect in the political arena and is highly sought by 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 its 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 actualize these when they cast their ballots," Al Amy continued. "It's important to 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. 6429) — Vote on passage of a bill to amend the Right-To-Farm Act to require notaries and buyers of property through a transaction that says a farm may be located in the vicinity and may be purchased from the funds collected. The Michigan House of Representatives passed the bill March 2, 1995. Farm Bureau favored a "Y" vote.

MI Issue 2 — Right-To-Farm (H.R. 4300) — Vote on passage of a bill to amend the Michigan Right-To-Farm Act to define a farm and to clarify farm insurance 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. 6442) — Vote on passage of a bill to provide an additional $10 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. 4806) — Vote on passage of a bill to amend the Michigan Vehicle Code to include the transportation of other materials necessary in the normal operation of a farm plus a farm tractor and trailer or other trailer to the vehicles allowed to transport saw logs, pulpwood and tree length poles as long as the entire load is transported and the load is not longer than 70 feet in length. The Michigan House of Representatives passed the bill Oct. 5, 1995. Farm Bureau favored a "Y" vote.


MI Issue 6 — Amendments to PA.116 (H.B. 4322) — Vote on passage of a bill to amend the Open Space and Farmland Preservation Act to clarify several administrative practices such as defining "permitted uses" of PA 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 8 — Elimination of Mandated Auto Territories (H.B. 4348) — 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 environmental audits of companies that have a historical environmental problem to voluntarily come forward to develop a dedicated environmental program. 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

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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 $4,500 for the 1996 Michigan Farm Bureau Collector Tractor prototype during Michigan State University's Ag Expo VIP break. State FAA officers picked with Norma and Dr. Guyer are right to right Kevin Nagen, Kris Fredrickson, Teresa Swaim and Jack Schut.

This year's collection tractor, the Oliver 1555, will be available for purchase in September at your local Quality Farm & Fleet and Country Post Stores. All proceeds directly benefit the Michigan FFA students. —
Precision Agriculture

Precision agriculture is about information. It's the technologies that 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 puzzle knows that understanding the farmer's challenge is to piece all the information together into a coherent picture that allows him to make effective decisions about his crop production.

Fortunately, technology provides a tool to help the farmer make sense of all the pieces of information pertaining to his land and crops. One of the most important tools that Terra's Precision Agriculture program links to is GIS. GIS is a computer software program that pulls together all the georeferenced information collected in a field of precision agriculture: grid sampling, yield monitoring, field scouting, etc. GIS stores hundreds of thousands of data points that are collected in a field and geographically referenced to specific locations in the field. The software-processing 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 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
- disease
- planting rates
- input applications (rates and locations)
- field perimeters and locations
- insect infestations
- field topography (crevices, ditches, etc.)
- fertilizers

Collected over a period of time, this data gives the farmer a history of his crop production system. It is a digital record of how a field—and specific areas of a field—responded to specific factors, such as soil moisture levels, wind and insect pressures, planting rates, and fertilizer and chemical applications. This valuable information is a real power of GIS is its ability to process all the data he then puts to use in a useful 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 "distant" in that it has little or no data associated with it, except possibly for coordinates that describe its location. With a GIS map, the software product links in a single point (or points that define an area) to all the information stored about the points (in the database). As a result, GIS is able to provide layers of data for a point or area of land or an entire field. It allows the farmer or 'Terra's crop production advisors a visual picture of how different yield results to soil type, chemical/fertilizer application rates, topography, plant population, weed/pest 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 parcel for the farmer who uses GIS/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 that quickly and easily transport information from the field to a personal computer.

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 while saving them a drubbing of the lean beef produced by Piedmontese cattle.

Today, Ron and his wife, Sandy, are Michigan's biggest advocates for the beef that has been eating up the United States for the last 10 years. They own 11 full-blood Piedmontesed breeding stock.

The Piedmontese cattle comes from a unique breed of beef bred from the hills of Italy, in the Piedmont region, hence the name. Currently there are over 60,000 full-blood Piedmontese cattle, of which 4,000 are registered in the United States.

"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 fat and cholesterol. And they see a lean piece of meat, which is okay, but you still villainize it as being tough. The Piedmontese, with the structure of the muscle and the meat, actually is a tender meat. We have every supermarket handling Piedmontese beef."

U.S. Department of Agriculture and laboratory research has confirmed some remarkable results. A 350 square serving of pure Piedmontese beef has 1.7 grams of fat—less than a similar sized serving of skinless chicken and turkey to key that most cuts of beef. The amount of cholesterol (35 milligrams in 350 square inches for pure Piedmontese) in 4% milk Piedmontese is also considerably lower than any alternative.

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

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

The double-muscled also poses the question about how much feed does the animal require. According to Mroz, they're comparable to hereford as far as daily gain and intake. They might be a little bit of 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 Mroz's 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 AgriPac endorsements for the U.S. House of Representatives

| Y | H | U | Y | N | Y | N | Y | N | N | 10 | 0 | 100 |

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 a course of Piedmontese beef. Other highlights of the field include an earth-moving demonstration and planting demonstration by PAUS Vice President Wayne Schulach 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 Mroz at (810) 667-7999.
Late planting and insect problems

by Mike Haas, Entomology

Even the planting delays and unusual spring weather, many insect problems should be aware of The following are situations which may occur.

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

Insecticide applications to 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 antworms, cutworms and stalk borers are all mouth which may larva on eggs. Antworms and cutworms prefer grass stands for egg laying. Corn planted into wheat stands which were too poor to keep may be at risk for antworm. Corn planted into soybeans which have grass stand reduction from cutworms is passed.

European Corn Borer

In areas where the first generation of European corn Borer (ECB) have heavily infested corn. Michigan has two generations of ECB in most of the lower peninsula. Fields infested with the first generation will have a potential for economically damaging level of second generation ECB. The moths 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 immediately as reports of 100 percent infested plants have been common. Each ear, up to a maximum of three ears, may result in yield reduction of 10 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 bottoms layers of the leaves can be seen. Damage of an advanced nature will be powdery. Feeding occurs that the rolled up whitish area results in 'hooded' patterns across leaves. A brown discoloration with an entrance hole on the leaf midrib is evidence that tunneling has occurred. Brown, moist, sandpaper-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 to the ears for laying eggs. Eggs will also be laid on smaller corn that is all that is available. In the small plants, less than 15" in extended leaf height, generally do not support the larvae. The adults are exceptions, so do not ignore the potential for corn borer infestation in small corn.

Controlling the target (valiant planted) corn frass. Choose five random locations of the field and check the wheat leaves of 20 consecutive plants in each area (100 plants/field) for feeding damage. Keep a count of the number of plants and areas that are infested and record this number. Then choose two damaged plants in each of the five areas (100 plants/field) and examine the plants for feeding damage.

Grass on the tallest and pout of all the plants, unroll the leaves and look for whitish larval damage with dark heads. Necrotic hatched larvae are 3/4" long. Count the number of live borers found and record this number. (Note: use "3" for any plant in which there are more than five borers are found. Addi-
tional borers in a plant in which do not significantly increase damage. Plug the information from above in the following formula:

\[
\text{percent pressure} = \left(\frac{\text{average # of larvae per plant}}{100} \right) \times \left(\frac{1}{3} \times \text{expected yield in bu/\text{A} \times \text{expected price per bushel}}\right) \times \left(\frac{1.05}{1.00} \times \text{cost of control/A} \right)
\]

Fill in the yield and price you expect and the level of control anticipated, ranging from 50 to 100 percent. Once the level of damage has been determined, materials. If experience tells you that you can achieve greater than 50 percent control with a liquid-insecticide (even the most appropriate material). Use nozzles and pressure that will give large drops that roll down the row.

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 loss per acre. Negligible results mean that an insectic- ide treatment is not economically justified while a positive result shows the dollar benefit that would be derived from an application. Example:

\[
\text{Expected yield in bu/A} = 110
\]
\[
\text{Land value} = 1.05
\]
\[
\text{Expected price of corn} = \$3.50
\]
\[
\text{Cost of control/A} = 0.05
\]

\[
\text{Expected percent pressure} = \left(\frac{1.05}{1.00} \times \frac{1.05}{1.00} \times (0.05 \times 5.00) \times 1.00 \right)
\]

= \$0.65 profit/acre

Many fields planted late in May and Early June were unable to plant due to the green growth of the grasses. These POST applications provide control of many annual grasses and can delay annual grass growth. These POST treatments can delay grass growth somewhat and apply late in the afternoon/evening.

The risk of purple blotch on onions is high. Purple blotch lesions quickly become large (the size of a dime or larger) and develop on the leaf with the older leaves and older leaves of plants. It is advisable to take action to control Alternaria leaf spot. 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 potential serious problems.

Weed control in late planted soybeans

by Karen A. Renner

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. What cannot be planted for three months after Classic or Syngenta herbicides. Read the product label, Spen-
ter or Reflex applications. Therefore what cannot be planted until very late in the fall if any of these restrictions are applied to soybeans in mid to late July.

Weeds: Many will have germinated prior to planters. Early weed control is critically important. Certain weed problems 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 postemergence grass herbicide such as Assure II, Select, or Fusion. These herbicides control less than promising crops. Many broadleaf weeds will not be controlled by these herbicides and thus may be released. These POST options include: Inexpensive total POST options include:

- Apply only Censrc or Lanata or Pursuit and POST as needed.
- Inexpensive total POST options include:
  - Stock or Galata (preemergence of Blazer) (Stokorm contains 1 pa/Blazer and will set annual grasses greater than Blazer), and Pursuit preemergence applications of Lasso, Dual, or Frontier. (We do not suggest applying Prove this late in the sea-
son because of a concerns for rotation crops. If pressure will be less in late planted fields. Broadleaf weed control: What cannot be planted for four months after planting follow the label, Tordon, Pinnacle, or Sencor, Pursuit, Canopy, or Scepter (Broadstrike/ 
Duact is 4 months). Corn planting in 1979 would not result in insecticide infestation of these herbicides for the longest rotation interval of 10 months; Scepter is 18 months in all counties in Michigan except the southern two counties. Therefore if corn is the planned rotation option there may be some preemergence as well as postemergence broadleaf weed control options. Lonsota will control small broadleaf weeds. Velvetleaf and cocklebur will not

Manage soil compaction now to maximize yield potential

by Paul Marks, Monroe Country

It appears that the soils on your farm may be more prone to compaction during 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 the serious rains have subsided, management of the soil to maintain crop produc-
tion is the order of the growing season be-
comes a priority.

Just think about the magnitude of the weight of the excess rains that fell on 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 approximately 100 tons. That's right! An acre inch of water weighs over 100 tons.

With a little multiplication it is easy to see how much extra energy was applied to compacting the upper layers of soils in the spring. The importance management of the growing season be-
comes a priority.

Just think about the magnitude of the weight of the excess rains that fell on 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 approximately 100 tons. That's right! An acre inch of water weighs over 100 tons.

Muck vegetable update

by Mary Hausbeck, Botany and Plant Pathology

The recent rainy weather is very favorable for bacterial blight development on colebery. Bacteri-
al blight can be partially kept in check with copper sprays, and should not spread much during dry weather conditions. Kocide DF (2 lbs/A) or Copper sulfate 50% (2 to 4 lbs/A) are registered for use on cabbage and colebery. 2 pts/A) are registered for con-
trol. Insecticides applied after the stalk has been entered will not kill the larvae.

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 potential serious problems.
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

A n overhaul of the nation's crop insurance system and the state's drain code raised 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, either from storms or from melting snow, have showcased the serious weaknesses of the state's outdated drain code. He said that added development and the eventual number of acres being tiled has overwhelmed the drainage system.

"If we don't address the serious inadequacies of our system, we will continue to have these problems," he continued.

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 field of sugar beets that required a 1½-inch pump and 15 hours to pump off three feet of water.

Starkey experienced the inadequate 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.

Insurance companies and agricultural specialists are available, 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 planting of dry beans and sugar beets under the non-insured assistance program (NAP).

According to MFB Ag Economist, Dr. Gerry Schwab, there were only 5,500 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 revise the "Reinsurance" 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 high centers of this spring would not prompt the industry to make a hasty decision on the new farm bill and the loss of all the 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 1, he said. "Normally, during the growing season, we have around 19 inches from the first of April through October.

Michigan Sugar's total contracted sugar beet acreage was already down 20,000 acres from the 125,000 acres contracted for growing the planting season. Berstein estimates that of the 90,000 acres actually planted, 10 to 20 percent will be lost, with yields on the remaining acreage suffering losses of 20 to 40 percent.

"We've got quite a bit of disease showing up in the fields from excess moisture," Berstein said. The best things producers can do now is get those beans cultered to help dry things out so that they can be kept.

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 7.5 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.

"There's a need to figure out how much nitrogen has been lost and whether or not an indiciation serious violations exist in Michigan's industries," said Charney. However, he said that producers should not concern themselves with the nitrate form of N. Only those would be lost, with yields on the remaining acreage suffering losses of 20 to 40 percent. "It's the runoff that's killing us," he explained.

The reevaluation option is only viable until you no longer have sidedressing options.

Heavy rains cause nitrogen losses

by Maury Vitosh, Crop and Soil Science

Easy 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 losses which received ammonium form of N less than one week prior to rains would be expected to be lost. 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 scored has been devised by Mike Schmidt, Retention Soil Scientist at the University of Minnesota, to help decide if supplemental, or extra N is needed. I have modified the scored for use in Michigan under the current conditions. The scored 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.

In mind that good judgment is still very important when using this simple decision all.

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 before 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 but 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 194s for the current production cycle and possibly up to three years.

Employers who are covered by the Fair Labor Standards 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

For employees hired directly by an employer, the Forms 194 must be retained for three years after the period during which the last day of work is. For employees hired by an employer who then subcontracts work to another employer, the Forms 194 must be retained by the subcontractor for three years after the date of the workweek.

General Mills joins cereal battle

General Mills reacted to Kellogg's first salvo in 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 would slash its prices an average of 10 percent on two 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 80 years of research in botany, 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 Ag Business Association, the Michigan Soybean Promotion Committee, and the Michigan Farm News, is slated to be held Aug. 11 at Seaica, Aug. 12 at Vicksburg, and Aug. 25 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 cover state chemical dealers and custom applicators, covering topics including: Applicator Technology, Defl Maintenence, Environmental Protection, Roundup Ready Soybean Recommendations, and Weed Resistance, Biotech Changes in Soybeans, Monsanto Corn Pest Herbicide Comparisons, and a plot tour.

Developed through years of research in bio-technology, Roundup Ready soybeans are genetically improved so they are tolerant to Roundup brand 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 simply and improve weed control, and help growers to increase their competitiveness through improved efficiencies," Little said. "The application window for Roundup herbicidals 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 a free charge but registration is suggested by calling 800-443-3529. For more information about the Roundup Ready 1996 Michigan Tour, contact the Michigan Ag Business Association at (517) 355-6023 or one of the following Monsanto representatives from the location nearest you:

- St. Joseph - (616) 777-6040
- Kalamazoo - (616) 777-0815
- Allegan - (517) 575-3780
- Cass - (616) 467-7306
- Frankenmuth - (517) 699-1005

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, increased yields and profitability.

Assessing your dairy forage needs

By G. William Robb, Extension Dairy Agent

Many dairy farmers are hearing from planting corn and soybeans and are also hearing from growers with tall fescue, that harvesting hay in a timely manner this past growing season took its toll on feed reserves 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 know that the average date for the killing frost of 30°F for Berrien, Cass and Southern Van Buren counties is Oct. 20. The majority of the remaining tall fescue and all of Allegan counties average date for frost is Oct. 15. Nine out of ten years in St. Claire, Mich., the first killing freeze does not occur before Oct. 3. Corn growers with July 1 to Aug. 9 percent chance to receive 867 growing degrees and a 50 percent chance of receiving 2083 growing degrees. Early July planted corn may have 90 days before killing frost for those farms near Lake Michigan.

Estimate Feed Needs

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

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. Forage will be on high 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 allials yields may be possible.

Farms shouldn't make a hasty judgment on the feed situation for this spring's weather patterns in Michigan, said MBF president Jack Laurie. The Tooea county dairy farmer, appearing recently on Michigan Farm Radio Network's Pat Driscoll "Big 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 mechanism of getting the crop planted in time to have it ripen and have a harvest," he said. "It gives us 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 highlighted the importance of farmers taking responsibility for their own risk management. He said that many farmers have talked to them that they have some crop insurance. The farmers interviewed said, said, that insurance would not make them wealthy but it will allow them to manage their way through the weather extremes 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, America is 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 now being moving in the same direction with agriculture," he said.

Gov. Engler called developments sprawl the most important environmental problem Michigan state and indicated his support for legislation that helps preserve farmland resources. "Taxes and regula- tions have hurts, and you can't just say one farm family that you've got to bear the costs for the good of society," he said. "We want to make sure that's one reason this is," he said.

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. "We face reform to make sure that everybody that wants to work will take those jobs is vitally important.

High corn prices have resulted in an all time high use of commodity and by-product feed sources which has resulted in an attempt to move to soybean and corn supplies and reduce feed costs. All energy feed stuffs 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 feeds transportation costs.

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

When feeding comvention and by-products the starch content of the alternative ingredient must be considered. By products results from the grain processing industry and parts of the nutrient have been removed. A feed lab's value may approach that of corn but lack the rumen fermentable carbohydrates. 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 nutritionist about 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, your input into the highest return enterprise 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 for her- rating based on labor and feed availability. Calling critical matches should match the farms financial and feed situation. Do not let low milk prices drive your decisions.

Feeding the milking herd should be re-evalu- ated by production groups. Many dairies feed one TMR to the entire herd. Under high feed costs situations, more production groups will save feed and keep costs 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 your production management systems for what applies to 1996-97 economics. Profitable milk production is the goal. Understand your feed production potential and use this information to make the best possible decisions.

Delay in release of meat inspection rules

The Agriculture Department has delayed release of new rules that would require the nation's meat inspection agency to gather more personal information from the White House concerns over how the regulations would affect small businesses.

The White House Office of Management and Budget has withheld approval over some sec- tions of the new inspection system, known as Hazard Analysis and Critical Control Points. The office recently received a letter from the Small Business Administration stating that small U.S. slaughter plants and 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
Group of Michigan Farm Bureau

P. A. 232, Michigan's Agricultural Commodities
Marketing Act, is an important tool for
helping farmers meet the challenges of
lengths of tomorrow's rapidly evolving marketplace.
This, the art was clarified and reclassified to reflect
changing bean laws and knowing the importance of serv-
importance of survival and producer assessments.
The program is funded through checkoff at the first point of sale.
The apple, asparagus, cherry, corn, dairy product,
ored, plants and soybean industries use one or more of
the factors of P.A. 252. Over $10 million in assessment funds are collected
for these commodities each year, according to
the Michigan Department of Agriculture.

Beans from Michigan farmers
will fuel the Olympic dream

by Mary J. Gawenda

Michigan Bean Commission members with Olympic-bound dry beans:

Beans are a very important part of the athlete's diet.

The Bean Commission set out to
discipline, and other counties and
attached, and other counties and


ZFS to showcase new soybean
processing plant July 31

Red clay attorney David Porteous has been
took several failed attempts, Zwerp reached.

Neel and Black beans grown in Saginaw, Gratiot,

Engler appoints Porteous to
MSU board of trustees

Red clay attorney David Porteous has been
named Messiah Produce & Grain, the oper-
ning brought, sold and transported produce, grain
and feed products in a three-state area,
are a nutritious powerhouse and

ZSLS's processing plant in Michigan.

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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 in 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 gleaning from academics, ag 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 highest yielding areas of a field have the lowest P & K levels, while the lowest yielding spots have the highest P & K levels (see figure at right).

Although this observation often surprises people at first glance, in 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. Profitable 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 undeniably 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 (VRF) 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 outproduce heavier areas of a field in a very wet season, 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 locational specific yield goals on which we can base VRT fertilizer 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.

<table>
<thead>
<tr>
<th>Crop</th>
<th>Unit of Yield</th>
<th>P&lt;sub&gt;20&lt;/sub&gt;S&lt;sub&gt;20&lt;/sub&gt;</th>
<th>K&lt;sub&gt;20&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn grain</td>
<td>bushel</td>
<td>0.37</td>
<td>0.27</td>
</tr>
<tr>
<td>Corn silage</td>
<td>ton</td>
<td>3.20</td>
<td>8.00</td>
</tr>
<tr>
<td>Soybeans</td>
<td>bushel</td>
<td>0.80</td>
<td>1.40</td>
</tr>
<tr>
<td>Wheat grain</td>
<td>bushel</td>
<td>0.63</td>
<td>0.37</td>
</tr>
<tr>
<td>Wheat straw</td>
<td>ton</td>
<td>0.09</td>
<td>0.91</td>
</tr>
<tr>
<td>Alfalfa</td>
<td>ton</td>
<td>13.00</td>
<td>50.00</td>
</tr>
</tbody>
</table>

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

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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 supereasy fat-burning soup of 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 much water as you want."

"Nutritionists say the soup has too much sodium and cholesterol and could cause high blood pressure," the Sun-Times columnist Richard Rooper relates. "The diet doesn't work in the long run. You can drop some quick weight, but unless you're committed to the low-calorie 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."