



MICHIGAN FARM BUREAU

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Guyer praises Farm Bureau support

f the state of Michigan fielded a baseball team, Gordon Guyer would be the ultimate utility



player. Probably no other public official in our state's history has had such a varied career and served in such a wide range of capacities at the highest levels of leadership. This long and distin-

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guished career in science, higher education and

public service comes to an end Oct. 2 when Gordon Guyer steps down as director of the Michigan Department of Agriculture (MDA).

Guyer, born on a farm in Kalamazoo, has deep roots in agriculture and has long enjoyed what he describes as a "tight-knit and productive" relationship with Michigan Farm Bureau. The significance of that relationship was recognized in 1983 when he was presented with MFB's Distinguished Service to Agriculture Award.

"I've never had a disappointment in Farm Bureau leadership being part of our priorities (at the MDA), and I've been thrilled with the support we've had from the Farm Bureau membership," said Guyer in an exclusive interview with the Michigan Farm News

Guyer began his public service career in 1953 as an instructor of entomology at Michigan State University. A decade later, he was named Professor and Chairman of the Department of Entomology and Director of MSU's Pesticide Research Center. He continued serving MSU as Director of the Cooperative Extension Service, Associate Dean of the College of Agriculture and Natural Resources, Director of the W.K. Kellogg Biological Station, and Special Assistant to the Senior Consultant to the President of MSU

He tried to step down from public life when he retired from MSU in 1986. But twice he was recruited to return to the university: once in 1988 as Professor Emeritus and Vice-President for Government Affairs, and, in September of 1992, as President of MSU (a position he held until October of 1993)

In between his additional tours of duty at MSU, Guyer was Director of the Michigan Department of Natural Resources for two years.

He stepped forward once again to serve the agricultural community when he accepted Director of the MDA in 1994. "This job has had the most rewards," he said. "One reward was to see the new enthusiasm for the public/private partnership in Michigan agriculture. It's unique across the country." Guyer said he is proud of the proac-

Michigan's weatherbeaten corn crop



Chopping corn silage normally marks the beginning of Michigan's corn harvest, but in many parts of Michigan it also marks the end of corn harvest since silage may be the only thing nutritionally to come out of the 1996 crop. Operations like Pater Brothers Farm near Jamestown were forced to chop 21/2 times more corn than they would in a normal year, according to Ottawa County Farm Bureau member Bob Pater.

State hay availability reaching critical stage

1996 growing season of weather extremes, an attractive corn market and a heavy infestation of potato leaf hoppers have created a serious shortage of quality hay in the state, escalating fall prices for hay to as much as \$5 per bale. Osceola County MSU Extension Director Jerry Lindquist, who also coordinates the Michigan Hay Sellers List, predicts that next winter and spring will rewrite the book on high hay prices.

"We've always said that \$5 a bale seemed to be. the ceiling for hay, but we're in a different ball game than we have ever been in before, as far as these prices go-it's a hard one to predict," Lindquist said. "We're still in the hay harvest season and we're seeing prices usually reserved for January and February."

A large number of hay acres were sacrificed last spring to take advantage of higher corn and soybean prices. A delayed first cutting has resulted in a fair amount of generally poorer quality first cutting hay going for \$100 to\$120 per ton, says Lindquist. Drought conditions, combined with a severe infestation of potato leaf hopper, put a serious crimp in second and third cutting yields, with prices for those cuttings going over \$160 per ton. Tom Guthrie, who serves as MFB's vice president, operates a 450-acre cash crop hay operation near Delton in Barry County. Unlike most years, he's going into the winter months with his hay mows relatively empty. "Most of the hay we made this year was sold directly out of the field," he said. "We haven't put a bale of third cutting in the barn as yet, and most

of it was going for \$3.50 a bale right off the wagon."

Guthrie, who markets most of his hay within a 25-mile radius of his operation, says that shortages in other states are equally desperate. Prices for hay in northern Indiana have held steady in the \$4 to \$5 range for a 50-pound bale.

What first cutting Guthrie has remaining is listed at \$3.50 a bale, and he expects that second cutting won't come out of the barn for anything less than \$4 per bale. He says that 700-pound round bales will fetch \$35 for first cutting and \$45 per bale for second cutting. Hay sold at local livestock yards in his area, regardless of cutting, is generally going for nothing less than \$3 per bale.

Raymond Oates, of Raymond Oates and Son, a 1,400-acre cash crop hay operation near Waldron, reported prices of \$140 to \$160 per ton off the farm for good-quality second cutting, and \$100 to \$120 per ton for "mediocre feed," but expects those pric-

COVER STORY

e've had exactly 1/10 of an inch of rain since the day I planted the corn to the day I chopped it. We're lucky to get a wagon of silage to the acre," says Ottawa County dairy producer Andy VanDyk.

It could be a long and expensive year for Allegan and Ottawa County livestock producers. One weather related problem after another has left producers in those counties facing corn crops that are producing as little as two tons of silage to the acre, and stalks that are completely barren of an ear.

Heavy spring rains kept Andy VanDyk, a dairy producer approximately 25 miles east of Holland, out of the fields until the end of June. To add insult to injury, the weather then turned to drought conditions, with little or no rainfall in many sections of the two-county area. "We've got about 85 acres of corn that's all about 21/2 to 3 feet tall and there aren't any ears on it whatsoever," VanDyksaid.

Five miles north of VanDyk, Ottawa County Farm Bureau President Laverne Haveman is estimating that his corn will average about 10 tons per acre, with the sandier ground suffering the poorest stands. "There's a few fields that I've seen that aren't over a foot tall - it's all tasseled out and it's brown," Haveman said. Calling the feed supply a serious situation, Mike Elliot, Pioneer Hybrid District sales manager for the area, says that many of the livestock producers in the two-county area will have to look to grain producers east of U.S. 131 and north for sources of feed. "I think horrible would describe it pretty accurately," Elliot said, referring to the corn crop's rapid deterioration. "In a matter of two days we lost an

tive use of MDA management teams to address ontinued on pag



es to easily hit \$180 to \$200 per ton in the state.

Both Oates and Guthrie say producers can typically purchase round bales for \$15 to \$25 per ton less, provided their facilities are set up to handle the round bales and transportation can be kept to a minimum. "Round bales are still not moving you can only afford to move them a short distance." Oates said. "Then if the bales were stored outside, nobody really knows how much spoilage there is."

Oates, who says the shortage is nationwide, has turned away inquiries from as far away as Texas, Continued on page 3

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News in Brief



From the President

Turn back the animal rights assault — vote no on Proposal D

he agricultural industry has a major stake in the outcome of two of the ballot proposals that will be considered by Michigan voters this fall. Your organization is strongly urging a "yes" vote on Proposal G and a "no" vote on Proposal D on Nov. 5.

It's easy to remember the difference: Proposal G would reinforce that the Commission of the Department of Natural Resources has the sole authority to regulate the taking of game in the state. Remember that "G" stands for "good management." Proposal D, on the other hand, is a radical, animal rightsdriven attempt to begin eliminating all sport hunting and fishing. "D" stands for "dumb and dangerous."

The wording of Proposal G provides that the Natural Resources Commission has the exclusive authority to regulate the taking of game, including bear hunting. It also requires the commission to utilize "principles of sound scientific management" in making decisions regarding the taking of game and to minimize human/bear encounters. Agriculture has not always agreed with Department of Natural Resources doctrine. But if we as farmers are to have any hope of making progress on the wildlife crop damage issue, it is crucial that game management remain under the control of wildlife experts.

You would get the impression that Proposal D is only about bear hunting. But look below the surface hype and you find that Proposal D is really aimed at wiping out hunting and fishing. I think it's fair to say that the animal rights groups that are pushing Proposal D really don't care about the importance of hunting as a tool farmers can use to help control wildlife crop damage. These groups just care about advancing their anti-hunting, vegetarian agenda.

Closely examine the implications of the Proposal D language. If passed, Proposal D would prohibit the use of bait and dogs to hunt bears at any time. I'm not a bear hunter, but the Michigan United Conservation Clubs (the state's leading hunting organization) says that bait and dogs are the only practical and humane way to control the state's bear population. If you eliminate baiting, it will be extremely difficult to lure bears out of Michigan's thick and swampy terrain. And, if bear baiting is banned, you can be sure that deer baiting will be next. Admittedly, there have been some trespass problems associated with retrieving dogs. But the MUCC says better law enforcement and hunter education has addressed much of the trespass problem.

Another part of the Proposal D language prohibits bear hunting during open season for deer if baiting or hunting with dogs is permitted during these seasons. That wordage is a direct-on shot at deer hunting. It would basically slam the door on any possibility, for example, of opening the bow hunting season earlier in the fall as a way of addressing deer crop damage.

Whether you approve or disapprove of bear hunting, remember the real issues at stake with these two proposals. Approval of Proposal G would keep common sense and science the key elements of wildlife management in Michigan. Passage of Proposal D would be an animal rights victory of national proportions. And make no mistake about it: hunting is number one in the cross hairs of the animal rights fanatics. But the farm use of animals is next on their kill list.

e danie Jack Laurie, President

Michigan Farm Bureau



Berrien County Farm Bureau hosts Ag Accident Rescue seminar

Large corn crop may not help shortages

rist, the good news: The Agriculture Department has announced that this year's corn crop could be the fourth largest in the nation's history. Now, the bad news: The large corn haul may not be big enough to help replenish the depleted stockpiles or to settle volatile markets.

The Agriculture Department now forecasts an 8.8-billion-bushel corn crop, a 109-million-bushel increase from its August projection. A 2.27-billionbushel soybean harvest is also projected.

"We're still looking at a very tight grain supply situation," said Mike Hoover of the WEFA Group. "Increasing the corn crop helps a little, but it's not a savior vet by any means.

Economist John Schnittker, of the consumer group Public Voice for Food and Health Policy, said the grain shortages probably won't be eased until next year's crops are harvested.

Greenpeace protesting U.S. soybean imports

Greenpeace, which claims a poll conducted in early September reveals two-thirds of Germany's citizens oppose genetically modified soybeans, is organizing protests against U.S.-produced soybeans. Greenpeace says Germans should resist using herbicide-resistant soybeans, called Roundup Ready soybeans, developed by the Monsanto company.

"If Monsanto has its way, we will soon have genetically altered soy in bread, margarine and chocolate," said Joerg Naumann, head of Greenpeace's campaign. In spite of Monsanto's assurances that the herbicide-resistant soybeans require less herbicides and are more cost-friendly, Greenpeace argues that U.S. and European Union safety checks are too lax. Sixty percent of Germany's soybean supply comes from the United States. 🟉

Exports predicted to fall \$2 billion in 1997

Because supplies of corn, wheat and cotton are expected to be tight next year, the Agriculture Department has lowered its export prediction for 1997 to \$58 billion - below its earlier prediction of \$60 billion - despite even stronger exports of other commodities.

"Although prices will remain strong, lower expected shipments of wheat, coarse grains and cotton will reduce export value for these commodities by nearly \$4 billion in 1997," USDA said in a report. The decline in exports will be offset by an \$800 million increase for soybeans, soybean meal and larger shipments of soybean oil. Exports of livestock, poultry, fruits, vegetables and nuts also are expected to increase \$1 billion, easing the hit from the grain and cotton losses.

Livestock, dairy and poultry exports are expected to reach a record \$12.7 billion, eclipsing the \$12.1 billion mark set this year. Fruit exports are expected to reach a record \$3.5 billion and vegetables also are anticipated to break a record at \$2.6 billion in exports. Nut exports are predicted to remain relatively unchanged at \$1.34 billion.

The report said some of the estimates are based on continuing sales levels to major trading partners, including Mexico, and Canada, and to steady growth in key Asian Pacific Rim markets. The predictions are for sales in fiscal 1997, which begins Oct. 1. 🟉

Continuous CRP sign-up details

ontinuous Conservation Reserve Program (CRP) sign-up started on Sept. 4 at local FSA offices and is intended to be available indefinitely. The Food Security Act of 1985, as amended, authorized the CRP to be implemented by Commodity Credit Corporation (CCC).

The purpose of continuous sign-up is to provide management flexibility to farmers and ranchers to implement certain conservation practices on their cropland. Acreage will be automatically accepted into the program provided the acreage and producer meet certain eligibility requirements at a peracre rental rate not to exceed CCC's maximum payment amount. The continuous sign-up process does not have a competitive bidding process; however, producers may elect to receive an amount less than the maximum payment rate.

Eligible land for enrollment in CRP includes cropland that has been planted or considered planted to an agricultural commodity in any two of the five crop years 1992 through 1996 that is physically and legally capable of being cropped. The acreage must also be determined eligible and suitable by the Natural Resources Conservation Service for any of the following practices:

- riparian buffers filter strips
- shelter belts living snow fences
- field windbreaks grassed waterways
- salt-tolerant vegetation,
- shallow water areas for wildlife. Further, acreage within an Environmental

Protection Agency designated wellhead protection area is also eligible.

Australians to market genetically altered pork

n Australian firm, controlled by the Adelaide University, has announced plans to market pork from genetically engineered hogs. The pigs have been modified by the introduction of a growth hormone to boost productivity.

The new gene, a synthetic copy of a human gene, was integrated into the pigs' genetic makeup and the first generation of progeny are the objects of some controversy in Australia. An advertisement announcing the "new" hogs drew only a few letters of complaint, seen as a sign of endorsement by the Australian National Farmers Federation.

Like debates about new genetically engineered farm products in the U.S., our Australian counterparts are smack-dab in the middle of a discussion over how, or if, to label the pork from the genetically engineered hogs. The director of the Australian National Food Authority disagrees with the farm lobby's contentions that the meat needs no special label. The Food Authority cites cases in the U.S. where labels stating the origin of genetically engineered products usually do not have too much of an effect on purchases, but cases where products carry no labels can prompt an intense level of media speculation and comment.

FFA convention to leave Kansas City

he National FFA Organization announced it will move its convention to another city after 1999, leaving Kansas City after a 68-year run. The group cited the need for more convention space in the announcement that will take away Kansas City's biggest and most profitable convention.



ver 95 rescue personnel serving Berrien fires, pesticide recognition and respective antidotes.

County participated in an Ag Accident Rescue Seminar held Sept. 14 at River Valley High School in Three Oaks.

The seminar reviewed with Emergency Medical Technician (EMT) and other rescue personnel the scope of agricultural emergencies, phases of extrication from rollovers, handling of chemical

The day-long seminar sponsored by Berrien County Farm Bureau and Berrien County MSU Extension was accredited by the Michigan Fire Fighters Training Council and the Michigan Department of Public Health. EMT's received five continuing education credits for completing the program.

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USDA purchases beef and ham for lunch program

he Agriculture Department announced a purchase of 1.44 million pounds of frozen smoked fully cooked hams and about 5 million pounds of frozen beef for distribution in the National School Lunch Program and other federal programs.

The hams were purchased for prices ranging from \$1.6715 to \$1.9299 per pound and was the first ham purchase since the program was announced last month. The hams are scheduled for delivery between Oct. 5 and 18.

The beef purchase was part of a USDA move to aid cattle producers. Since May, USDA has purchased about 55 million pounds of beef at a cost of about \$51 million. The latest beef purchase is scheduled for delivery during the same window as the ham purchase.

Last year, the convention drew about 37,000 visitors to Kansas City and brought more than \$14 million into the local economy. Also last year, some conventioneers were forced to stay in hotel rooms as far as 50 miles away from the convention site. The FFA has not announced where the convention will move.

Ethanol undaunted

orn's high prices and low stocks have dried up ethanol production - but only temporarily. Looking longer term, in its ongoing program to support ethanol, the U.S. Department of Energy's National Renewable Energy Lab has awarded a \$115,000 grant to the American Ethanol Coalition to continue biomass-to-ethanol feasibility studies. This particular project is focused on using native prairie grasses, Conservation Reserve Program cover crops and corn stalks as potential ethanol feedstocks.

Moving in the same direction, the Nebraska Legislature has voted to study non-traditional biomass feedstocks and technology that can be used to expand ethanol production.



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

NATIONAL ISSUE

Capitol

Corner

Regulation of transportation of hazardous materials

he Research and Special Program Administration (RSPA) in the Department of Transportation recently published a proposed regulation for the intrastate transportation of hazardous material within each state. If given final approval, the Federal government would in effect be telling the State of Michigan specifically what it must do to regulate the transportation of hazardous material within its borders.

Currently, each state establishes its own regulations concerning the transportation of hazardous materials. The proposed regulation by the RSPA would force farmers who move fertilizer, pesticides and fuel from farm to field and from field to farm to comply with the same requirements as commercial over-the-road haulers moving from state to state. The requirements include such things as placarding, obtaining shipping papers and maintaining a 24-hour emergency response telephone line.

Farm Bureau strongly opposes the proposed regulation because of the adverse impact it would have on many farmers. Further, the quantity of fertilizers, pesticides and fuel transported from farm to field and back by many farmers is not large enough to pose a significant risk to public health. The University of Illinois conducted a study to determine what the financial impact would be for an average farm to comply with the proposed rule change. The University estimated that it would cost the average farm \$2,070.

Michigan Congressmen Jim Barcia (D-Bay City) and Vern Ehlers (R-Grand Rapids) are members of the House Transportation Committee and have been contacted and asked to support an amendment that would continue state regulation of intrastate transportation of hazardous materials.

regulation of the intrastate transportation of hazardous materials.

MFB position: Farm Bureau opposes federal

MFB contact: Al Almy, ext. 2040.

NATIONAL ISSUE

Income averaging

ichigan Congressman Nick Smith (R-Addison) has introduced H.R. 3783 to provide income averaging of farm income earned by individuals and corporations. The income that would be eligible for income averaging would include the net farm profits of farm sole proprietors, partnerships and S corporations, and net gains from sales of

assets used in the business of farming, excluding net gains from the sale of real property. The bill is pending in the Ways and Means Committee and is not expected to be enacted this year.

3783

NATIONAL ISSUE Ergonomics rule

nitial efforts by the U.S. House of Representatives have failed to continue a ban on the Occupational Safety and Health Administration (OSHA) proposal to govern workplace practices that may lead to "ergonomic injuries." Ergonomics, as commonly used by OSHA, refers to any workplace factor relating to repetitive motion, working in hot or cold conditions, exerting force, gripping objects, lifting objects, climbing, stooping or bending, working in awkward positions, use of vibrating tools or any number of other conditions that might be encountered in farm workplaces.

The ergonomics standard partially drafted by OSHA in 1995 and 1996 is extremely vague in what it regulates and enforces against employers. For example, lifting a 35-pound weight once during an

Michigan legislators honored by American Farm Bureau

merican Farm Bureau has designated nine Michigan legislators to receive the "Friend of Farm Bureau" award for the 104th Congress. The award is given to individuals who have met the requirement for their voting records, and who were nominated by their respective state Farm Bureaus, in this case Michigan Farm Bureau. The nominations were then approved by the American Farm

MFB position: Farm Bureau supports H.R. MFB contact: Al Almy, ext. 2040.

eight-hour work shift would be sufficient to trigger the draft standard's requirements to identify an ergonomic hazard, require efforts at remediation, and impose an obligation to make constant efforts at identification and remidiation.

Medical experts who treat and study ergonomic injuries, such as the National Institutes of Arthritis, Musculoskeletal and Skin Diseases, and the American Society for Surgery of the Hand, admit that medical and scientific knowledge have not advanced to a point where a comprehensive workplace rule can be issued. The consequences of such a rule on farmers are obvious.

MFB position: Farm Bureau supported a continuation of the ban on OSHA issuing an ergonomics standard.

MFB contact: Al Almy, ext. 2040.

Sen. Spencer Abraham (R-Auburn Hills)

Farm Bureau" designation include:

Rep. James Barcia (D-Bay City)

Rep. David Camp (R-Midland)

Rep. Dick Chrysler (R-Brighton)

Rep. Pete Hoekstra (R-Holland)

Rep. Vern Ehlers (R-Grand Rapids)

When are SMVs required?

onflicts are arising as to when Slow Moving Vehicle signs (SMVs) are required. There are two regulations covering the use of SMVs: The Michigan Vehicle Code (enforced by police agencies) and the Michigan Occupational Health and Safety Act (enforced by the Department of Consumer and Industry Services, formerly the Department of Labor).

The Michigan Vehicle Code requires, when operated on the highway, an SMV emblem be displayed for:

- Every vehicle which has a maximum potential speed of 25 miles an hour;
- An implement of husbandry;
- Farm tractor; or
- Special mobile equipment.

The Michigan Occupational Health and Safety Act provides that the SMV must be mounted on the rear of the vehicle, broad base down, not less than 3 feet, nor more than 5 feet, above the ground and as near the center of the vehicle as possible. In addition, red reflectors or reflectorized tape is required on rear at each side of equipment. **Questions Related to SMV Use**

Q. If an implement of husbandry (defined as a farm tractor, a vehicle designed to be drawn by a farm tractor or an animal, a vehicle that directly harvests farm products, or a vehicle that directly applies fertilizer, spray or seeds to a farm field) exceeds 25 miles per hour, does the equipment require an SMV?

A. Yes. The provision includes "or" rather than "and"; each category stands alone and is not qualified by the other category. Therefore a sprayer mounted on a pickup would require an SMV because it is an "implement of husbandry" regardless of the fact it can travel at speeds over 25 miles per hour. Q. If there are flashing lights, a rotating beacon or strobe light on the unit, do you need an SMV?

A. Yes. If the unit meets the definitions of one of the categories above it must have an SMV in addition to the lights or other warning equipment.

Q. Since many farm trailers and wagons do not directly harvest, or apply fertilizer, spray or seeds to farm fields, do they need SMVs?

A. These units under normal use are considered implements of husbandry because they are designed to be drawn by a farm tractor and therefore need an SMV. When drawn behind a pickup or truck, the unit will need an SMV. Note: Operators need to check the unit's axles and tires for its maximum speed rating. Most of the units designed to be drawn by a tractor have a maximum of 25 miles per hour.

If the unit is designed to be drawn by commercial units such as pickups or trucks it may no longer meet the definition of an implement of husbandry and would not need an SMV. This unit would need to be equipped with brakes on all wheels, lights and be licensed.

Q. Can the SMV be used to mark driveways? A. No. The SMV may not be used on station-

ary objects within the road right-of-way Q. Who is responsible for SMVs on rental equipment such as a fertilizer spreader?

A. The driver is the responsible person at the time of a traffic stop and would receive the ticket. Injury liability in the case of an accident may extend to all parties having control and/or ownership of the unit. Under Michigan Occupational Health and Safety Act standards it is the employers' responsibility to maintain compliance with the standard. Therefore, if a supplier would cause their employees to operate the unit on the road the supplier would be responsible for compliance. Source: MACMA Regulatory Compliance Assistance Program.

State hay availability reaching critical stage

Continued from front page

and has a pre-paid order for 10-12, 600-bale loads a week to just one operation in Florida from November through April. "There won't be enough hay to go around in this state, not even junk hay. We'll be shipping hay in here from the west before too long," Oates predicted.

Lindquist hopes the Michigan Hay Sellers will keep that from happening. "There's enough demand in the state this year that producers can save on shipping, and keep the hay right here in the state for our own producers," he suggested.

Producers who have hay for sale can list their supplies, quality and asking price through their local MSU Extension office on a computerized network. Producers looking for hay can then do some comparison pricing on available supplies

Michigan Hay Sellers List (as of 9/12/96)

Tyler Wegmeyer • 517-379-4034

First and second cutting alfalfa, 125 small squares @ \$60/ton, stored inside

Ed Oplinger • 517-644-3079

- Second cutting alfalfa, 2,000 small squares @ \$120/ton, stored inside
- @ \$100/ton, stored inside
- First cutting alfalfa/grass, 200 small squares
- bly by the end of September not much later than the end of October," Lindquist advised.

and quality at their respective MSU Extension

offices. Lindquist says the list is just now beginning

to be compiled, now that the hay season is com-

pleted and producers know what they have to sell.

feed supplies and provide a little softening on hay

prices, neither Guthrie nor Lindquist anticipate a

"Producers needing to buy hay certainly

want to be locating a good portion of that hay as

animals through the winter. I would be looking to

have at least 70 percent of my hay located proba-

quickly as possible if their intention is to feed

major price reduction, since producers will still

need hay for fiber and protein.

While an early frost might add to potential

Bob Wallace • 616-796-7129

- *Second cutting alfalfa/grass, 25 large rounds @ \$90/ton, stored outside covered
- *First cutting alfalfa/grass, 34 large rounds
- @ \$50/ton, stored outside covered Ruth Long • 616-328-4513
 - Second cutting alfalfa/grass, 10 small squares @ \$75/ton, stored inside
 - Second cutting grass, 10 small squares

First cutting alfalfa/grass, 6,000 small squares

Bureau board of directors.

Those from Michigan receiving the "Friend of

Rep. Nick Smith (R-Addison) Rep. Fred Upton (R-St. Joseph)

Dairy group challenges New England contract

he Milk Industry Foundation has filed suit in U.S. District Court in Washington seeking to dismantle the New England Dairy Compact, saying that Agriculture Secretary Dan Glickman lacked constitutional authority to implement the commission.

Under the constitution, only Congress has the authority to establish an interstate compact, says the foundation. Glickman says the 1996 farm bill

gave him the authority to set up the commission. The suit seeks a preliminary and a final court ruling to overturn Glickman's decision.

Rep. Joseph Knollenberg (R-Bloomfield Hills)

Glickman set up the compact to stabilize dairy farm income in the New England states. Some consumer groups, including two closely allied with the dairy processing industry, oppose the compact. They claim it will drive up milk prices at the supermarket. 🟉

Guyer praises Farm Bureau support

Continued from front page

agricultural challenges ranging from revitalizing the pork industry to controlling TB in deer.

Looking toward the future, Guyer said land use is one of most important issues in agriculture. In addition, he said, "I'm convinced we've got to find ways to get our products more visibility. We need to see the same kind of aggressiveness in agriculture we see in small business and the auto industry in the

state." As a longtime agricultural scientist, Guyer said research is the backbone of the agricultural industry. "We've go to stay out front, and that depends on the support of MSU. The partnership of Farm Bureau, MDA and MSU is unique, significant and productive." Is this the last agriculture will see of Gordon Guyer? "Oh no, I'll always be visible, but I have no intention of getting involved on a tight schedule," he said. 🟉

- @ \$85/ton, stored inside
- Second cutting alfalfa/grass, 400 large rounds @ \$100/ton, stored inside
- First cutting alfalfa, 3,000 small squares @ \$100/ton, stored inside
- Dave Hickman 517-345-5755
 - First cutting alfalfa/grass, 18 large rounds @ \$100/ton, stored inside
- Second cutting alfalfa, 30 small squares @ \$92.30/ton, stored inside Barry Catlin, Sr • 616-832-1586
- First cutting grass, 200 small squares @ \$60/ton, stored inside
- @ \$55/ton, stored inside
- Second cutting other, 10 small squares @ \$75/ton, stored inside
- First cutting alfalfa/grass, 1,250 large rounds @ \$42/ton, stored outside uncovered

Neil Brigham • 616-734-5226

- First cutting alfalfa/grass, 38 large rounds @ \$50/ton, stored outside uncovered
- First cutting grass, 40 large rounds @ \$40/ton, stored outside uncovered

Theodore Sheets • 810-664-2379

- First cutting alfalfa/grass, 25 small squares @ \$100/ton, stored inside
- First cutting grass, 30 small squares @ \$100/ton, stored inside *1995 harvest year; all others 1996 harvest year.

Get AgriPac Endorsements on the Web! Visit us on the World Wide Web at: http://www.fb.com/mifb

NOVEMBER WILDLIFE BALLOT PROPOSALS Farm Bureau is supporting PROPOSAL G on Nov. 5.

September 30, 1996

Harvesting and handling high-moisture, frost-damaged grain

by Roger Brook and Tim Harrigan, Ag Engineering, Michigan State University Establish a harvest strategy

pot check each field to determine the apparent quality of the crop. Since the outside rows are atypical, walk through the field in a pattern. For example, walk in about 10 rows, then down 10 paces, over 10 rows, then down 10 paces until the field is thoroughly criss-crossed. An examination of the plants combined with, when necessary, collection of ear samples will help to decide when and where to harvest first.

Lodging and quality loss may be significant problems in frost-damaged grain. Corn or soybeans that are at risk of serious lodging (due to the presence of ECB damage or rotted stalks) or quality loss (as may occur when pods split due to exposure) need to be harvested promptly. The field drying rate diminishes significantly as the weather cools, and field drying essentially stops by mid- to late November. A strategy that combines timeliness of harvest with proper operation of equipment will go far to minimize field and harvest losses.

Iowa research data show that as the fall season progresses, we cannot expect significant drying in the field. The exception here may be freeze-drying if we wait for freezing weather. However, available information puts this at a 4 to 5 percent moisture loss. **Combining high-moisture, frost-damaged corn**

The objective when combining corn is to remove all kernels from the cob without damaging the grain. The best time to harvest is when the grain is about 24 to 28 percent moisture. As moisture increases above this ideal range, it is increasingly difficult to thresh all kernels from the cob without cracking the kernels. Preharvest preparation, field combine adjustments and patience will help put quality grain in the tank. The manufacturer's instruction book is a source of information on combine settings and should be referred to at all times.

Fields should be inspected the morning after the frost as soon as the plant has begun to thaw out. Options for handling fall frost-damaged corn depend on the plant stage when frost occurred. If the corn was frozen in the milk stage, grain yield will be low, and green-chopping or ensiling is the most viable option. If the corn was frozen in the dough stage, yields may be reduced by at least 50 percent and the test weight may be less than 50 lb/bu. Since kernel moisture will still be above 60 percent, the crop must be left to field dry, if whole-plant moisture content is too low for corn silage. During this period, field losses will increase due to stalk breakage and ear molds. Begin combining after kernel moisture drops below 35 percent.

Preharvest inspection of the combine will help assure the best possible mechanical condition. Start at the corn head. Check for and replace worn or loose gatherer chains, snapping plates, stalk plates, feeder conveyor chain, drive chains and bearings. Also, check the threshing components and correct obvious problems: worn or bent rasp bars or concave, alignment of the cylinder concave (parallel with cylinder or rotor), and worn or loose drive belts or chains. Check the operator manual for the suggested range of settings for cylinder speed, concave clearance, chaffer and sieve openings.

Fine-tune combine adjustments for best shelling and least cracking. Grain above 30 percent moisture can be difficult to remove from the cob and is easily cracked and damaged by over-threshing. Begin harvest with combine adjustments that would likely under-thresh a typical, lower moisture crop. Set cylinder or rotor speed near the low end of the suggested range, and set concave clearance near the widest recommended setting. Open the chaffer and sieve to the maximum recommended openings. Check with the combine manufacturer for machinespecific recommendations.

Poor shelling can be caused by too wide a spacing between the cylinder or rotor and concave, too slow a cylinder speed, or too fast a ground speed. Cracked corn in the tank can be caused by too fast a cylinder speed, or too narrow a concave spacing. Too much cob or foreign material in the grain tank can be caused by improper sieve adjustment or too low a fan speed. Check the trash discharged from the rear of the combine. Few kernels should remain on the cob and most cobs should be unbroken. Check grain quality in the grain tank; there should be few cracked kernels and little cob and foreign material in the grain.

Under-threshing may be caused by too slow a cylinder speed and too wide a concave spacing. To find the best settings for the field conditions, make one change at a time and check the results of these changes frequently. Since increasing cylinder or rotor speed is more likely to damage the grain than reducing concave clearance, first try to improve



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

threshing action by closing concave clearance slightly. Harvest a small amount and re-check grain quality in the tank. If many cobs begin to split without the corn being shelled, open the concave a small amount and try increasing cylinder or rotor speed by 20 or 30 rpm. Check grain quality and repeat the process until the best grain quality is obtained. At high grain moisture you may have to accept, and strike a balance between, higher than normal grain loss from unshelled cobs and damaged grain.

The chaffer, sieve and fan blast also affect grain quality in the tank. The sieve should be opened far enough to allow grain, but not larger debris, to drop through. If the sieve opening is too small, grain will move to the tailings return and kernel cracking from over-threshing will occur. With the chaffer and sieve at the maximum recommended openings, start with the lowest recommended fan speed and gradually increase fan blast until kernels begin to be blown out of the combine or into the tailings return.

Then, reduce fan speed a small amount. This is the maximum acceptable fan speed. Next, begin closing the chaffer and sieve slightly until little foreign material is carried to the grain tank.

Determine crop drying needs

Electronic moisture meters are generally not reliable at moisture contents above 25 percent, unless they have been specifically calibrated for this range. Moisture readings can easily vary up to 2 percentage points from the actual value. Check the sample with several meters to get an idea of the range of variability.

Harvest more silage: Beef and dairy farmers can reduce the need for drying by harvesting more whole-plant silage. The ideal whole-plant moisture concentration for ensiling corn in bunker (horizontal) silos and stacks is 70 percent in order to facilitate tight packing and air exclusion. This roughly corresponds to the early dent stage of development. Most upright silos should be filled with 60 to 66 percent moisture forage to avoid seepage. The lower end of this range corresponds roughly to the beginning of the black layer stage of grain development.

There is no evidence of increased whole-plant drying rates following frost before maturity. The kernel milk line will not be a useful guide to wholeplant moisture for corn frost-damaged at immature stages. Rather than guessing at plant moisture for this corn, use the microwave oven technique to monitor moisture content.



If you do not currently have silo storage capacity, you might consider hiring a custom operator who has a bag-packer to fill some silage bags. The cheapest silage storage option, but the one with greatest spoilage losses, is to build temporary silage stacks on a level, well-drained site. Packing of the silage in the stack is important for excluding air, and promoting the ensilage process necessary for preserving the silage.

Store and feed high-moisture corn if you have access to unused silo capacity. Older silos might need to have additional bands installed to withstand the grain pressure (contact a silo company for recommendations on silo bands). Shelled corn should be harvested at 25 to 30 percent moisture for storage as high-moisture corn.

Economics of drying relative to moisture content: If you delay harvest, you are likely to lose more grain in the field due to lodging and field mold. A 9-cent-per-bushel increase in drying costs is comparable to an increased field loss of 3 percent, assuming the corn is priced at \$3 per bushel. Relative to the price of corn, energy for drying is cheap!

High-temperature in-bin and column dryers are best for rapidly drying high-moisture corn from above 20-22 percent to safe storage levels below 15 percent moisture. Low and natural air drying systems are not recommended for moisture contents above 20-22 percent, unless the bins are layer-filled, **Continued on page 5**



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September 30, 1996

Guidelines on buying high-moisture shelled corn

by Jerry Lindquist, County Extension Director, Osceola County and Roger Brook, Ag Engineering, Michigan State University

any dairy and livestock farmers will be short of shelled corn this year. Some cash crop farmers may have immature corn that is very wet and will not make good dry corn. Cash crop farms will be looking to those farms in need of corn as a way to market some of their crop. The question then becomes how to set a fair price for high-moisture shelled corn (HMSC). Here are some guidelines to follow.

When negotiating a price with a cash crop farm, determine the following:

- The amount of corn you wish to purchase normally quoted in wet bushels (call the Extension office if you need to know silo capacities)
- The maximum corn moisture percent you will accept (for example, nothing above 34 percent moisture)
- How you will base the price for example, routinely based on the market price of dry corn at 15 percent moisture with the HMSC price adjusted to an elevator's shrink table

(see Table A), according to moisture
Offer some guarantee of payment as you

- should understand sellers get nervous when they deliver \$20,000 worth of corn to a person they don't know — and may never meet. Routinely, some farms are getting a guaranteed note from their lender up to a set dollar amount; others are setting up an escrow account with a third party, such as a lender, to draw out of as the corn is delivered
- Ask the cash cropper if there is a mortgage on the crop, and if there is, how the payment should be handled (this will avoid legal hassles for yourself)
- Determine trucking price routinely \$2 per loaded mile.

How to determine pay price for delivered HMSC

Before delivery, agree to a fair market price for 15 percent moisture corn. You can use an area elevator to give you a local price. If you have a method to determine corn test weight, you may agree to discount the market price if the test weight is below 54 (see Table B). Other possible discounts are for foreign material and kernel damage, mold or sour smell.

- Determine actual corn moisture.
- Determine delivered wet weight of truckload from the trucker's certified scale receipts.
- Then use the following equation: (multiplication factor from Table A) ×
- delivered wet weight × market price* of dry corn per bushel/56 (which is the weight of dry corn per bushel) = value of truckload of corn.

Here is an example: 47,458 pounds of wet corn delivered, your agreed market price is \$3.25 per bushel for 15 percent moisture corn, the corn is 30 percent moisture and the trucking is to be \$2 per loaded mile delivered from 90 miles away.

((0.781 × 47,458) × \$3.25) + 56 = \$2,151.08 value of truckload of corn \$2,151.08 + (\$2 per mile × 90 miles) = \$2,331.08 delivered price \$2,331.08/(47,458/2,000) tons = \$98.36 delivered price per ton of 30 percent HMSC. *An adjustment to the market price may be made if the test weight of the corn is low.

Shrink factors in the following condensed table have a range of 1.4 percent shrink per point of mois-

ture up to 2 percent shrink per point of moisture. This increases as corn moisture goes up. It also incorporates a percent dry matter handling loss.

Table A — Shrink Table						
Corn moisture	Shrink factor	Multiplication factor*				
26.0	0.154	0.846				
27.0	0.168	0.832				
28.0	0.182	0.818				
29.0	0.199	0.801				
30.0	0.219	0.781				
31.0	0.239	0.761				
32.0	0.259	0.741				
33.0	0.279	0.721				
34.0	0.299	0.701				
35.0	0.319	0.681				

Table B — Test Weight Discounts Discount S/bu. **Test weight** 53 0.01 52 0.02 51 0.03 50 0.04 49 0.06 48 0.08 47 0.10 46 0.12

Harvesting and handling high-moisture, frost-damaged grain



Continued from page 4 or have additional airflow capacity.

As the drying time increases with high moisture corn, it becomes more susceptible to browning. This is not necessarily a problem for corn to be fed to livestock. However, it will be discounted at the elevator. Research indicates that exposure to drying air temperature above 200 degrees for time periods in excess of 2 hours will likely result in some degree of browning. For corn above 30 percent moisture, browning is likely to occur. If it does, then the drying temperature needs to be reduced to 180 degrees or less.

Use in-storage cooling or dryeration instead of in-dryer cooling to reduce fuel use and boost capacity of high-temperature dryers. In-storage cooling requires only a good, positive pressure aeration system in a storage bin. Corn is unloaded from the dryer hot and cooled slowly in the storage bin. Dryer capacity is increased 20 to 40 percent and peratures colder than 30°F are not desirable because of the likelihood of warm spells during the winter, which may lead to moisture migration and a moisture build-up in the surface layers of grain. Temperatures warmer than 50°F will promote insect and mold growth.

Remember that at this airflow rate it normally takes 400-600 hours of fan operation to completely cool grain to 35-40°F during the fall and winter months. The most common mistake is to stop the aeration fans before the cooling front has moved through the entire grain bulk. This leads to condensation and layers of spoiled grain. Always move the cooling front through the entire bin before shutting off the fan.

Grain temperature can be estimated by holding a good thermometer in the exhaust airflow. The temperature change will be complete when the exhaust temperature is nearly equal to the outside temperature. For upward airflow, check grain temperature about 6 inches down from the top surface of the grain. For downward airflow, check the air temperature as it leaves the fan. Be sure to check around the outside edge of the fan, and not near the center. Inspection on a regular and continuing basis is important to detect any moisture build-up problems, which will lead to a further decrease in grain quality. These problems most often appear in the top 3 feet. The key words for action are LOOK, FEEL and SMELL LOOK at how well the grain is supporting you and for moisture condensation on the roof. FEEL the grain for increases in moisture and temperature. SMELL for any off-odors, but be aware that the development of odors indicates that earlier inspections missed something. Fall frost-damaged corn should be managed and aerated in storage the same way as normal dry shelled corn. The important requirements are proper drying, correct aeration system design (providing a minimum of 0.1 cfm of airflow per bushel of grain in storage) and aeration at the right times. Expect more fines and trash in poor quality grain. Precleaning before filling and coring the bin after filling add a safety margin.

Wet, broken kernels and trash do not separate out as well as dry ones, and they can only be stored safely for a few hours. Rotary screen-type cleaners have adequate farm capacity and are fairly inexpensive. They clean out large trash as well as fines. Perforated auger sections help, but they remove a relatively small percentage of the broken kernels. Be careful when feeding screenings. Toxins from mold development are usually more heavily concentrated in broken kernels and fine material than in whole, cleaned grain. Never feed moldy fines to dairy, poultry, swine, or young or pregnant animals.

Although soybeans killed at the R6 stage are worth saving for grain, the soybeans may not make U.S. No. 2 grade quality, due to high percentages of shrivelled green soybeans. Growers may want to consider non-traditional markets to increase the

value of their crop.

Safety Tips: Never enter a bin of flowing grain. An adult can be hopelessly trapped in 5 seconds and completely covered after 22 seconds. Use a lock-out to prevent bin unloading while you are in the bin doing an inspection. Always wear a goodfitting dust mask when working in or around moldy grain; moldy grain can cause allergic reactions and respiratory problems.

One final word of caution: Storing grain that was of poor quality at harvest into the next summer is risky. Remember that grain quality can never be improved during storage. Keep poor-quality grain in separate bins from good quality grain. This gives more flexibility in terms of special management, feed mixing and marketing options.

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about 1 percentage point of moisture is removed from the corn during cooling.

Dryeration involves unloading hot corn into a cooling bin that has a full-perforated floor and then keeping the corn hot for at least 8 hours before cooling is started. After cooling, corn is moved to a normal, aerated storage bin. Dryeration requires some extra grain handling and possibly an extra bin, but dryer capacity is significantly increased and about 2 percentage points of moisture are removed during cooling. Corn cooled in a dryeration bin is less susceptible to breakage than corn that is cooled rapidly in a dryer.

Fall frost-damaged corn should be dried to kernel moisture of 12-13 percent for long-term storage. If the corn is to be used for feeding purposes, or sold during the winter months, drying to 13-14 percent moisture should be sufficient. Overdried corn is safer for storage but it also has a much greater breakage susceptibility than corn delivered at 15 percent moisture.

Maintain a good storage management routine

Grain in storage should be between 30°F and 50°F to maintain quality over a period of time. Tem-

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Market Outlook

by Dr. Jim Hilker, Department of Agricultural Economics, Michigan State University



CORN

t is hard to believe the average U.S. corn yield will be 120.2 bushels per acre after the countrywide late plantings and somewhat dry summer, but unless we have had a significant frost in the last 10 days, that is what the USDA is estimating, given Sept. 1 conditions. As shown in column 3 of Table 1, this would provide for an 8.8-billion-bushel crop, which would really take the extreme pressure off prices. This does not mean we are out of a historically tight stocks situation; corn prices over \$2.80 are still historically high.

The Sept. 11 USDA World Supply/Demand Report also increased expected coarse grain production for the rest of the world. This will put downward pressure on prices as the world will need less U.S. corn. It is already showing up in the form of lower exports and export sales year-to-date. While the rest of the world coarse grain production is the biggest factor affecting U.S. corn exports in the short run, it is not the only factor. World income, and therefore meat demand, is also a significant factor that should still be going in our favor.

Unfortunately the weather has adversely affected Michigan as much as or more than any state. The latest USDA Crop Production Report estimated Michigan corn yield at 94 bushels per acre, down from the August estimate of 99 bushels. A typical yield for the

Seasonal Commo	dity Price Trends
Corn	
Soybeans	** 1
Wheat	
Hogs	**
Cattle	***
Index: ++ = stable prices; † =	higher prices: 1 = lower

State of Michigan would be about 115 bushels per acre and we have had as high as 118 bushels per acre.

My analysis is that new crop corn prices should not drop much further than they already have unless the USDA has grossly underestimated the crop. The lower prices should have the one benefit of slowing up the sharp cuts in demand that we have seen over the past few months. Consider having about a third of your expected production priced at this time, especially if you are past the frost damage point. Hopefully this third was previously priced at much higher levels when we had the opportunities. Be looking to price more on price rallies for fall delivery, especially if you have to use commercial storage. For those who need to purchase corn, consider locking in prices for a significant portion of this next year's needs; it may go lower, but not much.

Look at the December 1997 corn futures - at the time of this writing they where \$3.00 per bushel. I would hate to think how low they could go if many of the expiring CRP contracts are not allowed extensions. It may be time for some risk management decisions. What would 3-4 million more acres of corn and 128-bushel yields next year do for prices?

WHEAT

heat prices have really been taking it on the chin. The USDA raised expected 1996 U.S. production 47 million bushels due to the better than expected spring wheat production. They also lowered projected 1996-97 U.S. exports by 50 million bushels due to better than expected wheat production in the rest of the world. And as you can see in Table 2 below, this really loosens up the stocks situation compared to last year. It is not that wheat exports have been poor year-to-date - in fact they are running ahead of last year's very good levels - but rather that they will drop off dramatically as we go through the rest of the year.

On Sept. 27 the USDA will release the quarterly Stocks Report. The report will give us a good idea of the 1996 wheat that was fed. If the report is/was bullish, then consider pricing remaining 1996 wheat on the rally. This is not to say that the wheat market will not have another rally, but rather the odds are not real good that you will more than pay for storage. If you are still bullish on wheat, use a call option or futures; the out futures contracts also indicate the market will not pay storage.

SOYBEANS

he soybean market is the most solid, fundamentally. As shown in Table 3 below, we are expected to have tight 1996-97 ending stocks even with the 35.8-bushel-per-acre crop estimated by the USDA in the last Crop Production Report. We have only done better than that twice. The Supply/Demand Report also assumes a normal South American crop this winter.

For those of you who have priced 30-40 percent of your 1996 expected production already, consider holding for a price rally back toward the previous November contract highs. At that point it may be time to price additional bushels. Those who have not done any forward pricing should not read this as saying there is no downside price risk - we all know better - and it would be prudent to put some downside price protection in place.

If there has been a freeze that affected the market, my guess is that we should take advantage of any price rally now; the odds are the market will over-adjust in the short run.

HOGS

atch the hog futures charts. If we are still near the highs (notice I didn't say at or above them, although that would be okay) out through most of 1997, consider forward pricing a portion of your expected production out over the next year. If we have dropped off significantly from the highs, consider dropping the above advice.

What prices do may depend on what the

Wheat • Dec. '96

Live Hogs • Oct.

Dec Jan Feb Mar Apr



CATTLE

id the Sept. 1 Cattle-On-Feed Report, released Sept. 20, show large placements in August? The strong cattle prices we are seeing are not due to a turn-around in the cattle cycle or a seasonal surge, but rather are directly tied back to the high corn prices and low cattle prices we saw last spring. We had very low placements for several months and it is that which is showing up in the market prices we are seeing now. The cattle are still out there and

Sept. 1 Hogs and Pigs Report, to be released Sept.

will come to market - the question is, when? If placements were up sharply in August as expected, we may see a sharp drop-off in prices by December. Remember, these are heavy feeders that are being placed and the turnover will be fairly quick. If placements were smaller than expected, it just means that the fall in prices will come a little later and may not be as sharp.

The advice is to keep very current to take advantage of the good prices on as many of your cattle as possible. Also, look at the cattle futures charts out through April - if they remain near their highs or make new highs, consider forward pricing some of your production.

Allegan and Ottawa **County corn crop** disastrous

Continued from front page



entire plot - it just burned right up, just died and went away,"

According to Bill Robb, MSU Dairy area of expertise agent for Ottawa and Allegan counties, many fields in the area fired up and died due to the persistent drought conditions and extreme heat. He predicts that corn yield potential is no more than 50 percent of normal at this point for the area. "Farmers have commented that their fields of corn had actually shrunk - even the tops of the plants have turned brown in the last month," he said. "It's either been chopped for silage or the stalks are totally barren so there's very poor yield potential out there."

Although total average rainfall isn't that far behind, Haveman points out that the figure is very misleading, since a majority of the growing season's total rainfall fell in May and June during two heavy 4-inch rains. He contends that actual crop conditions are as bad or worse than the drought year of 1988 in Ottawa County. "I think feed is going to be rather scarce next year and it's going to be high priced - provided it's available," he said.



COMMODITY PRICE TRENDS





COMMODITY SUPPLY/DEMAND BALANCE SHEETS

Table 1 — Corn

Dec Jan Feb Mar Apr

.2 .2 79.6 .0 73.3 .5 120.2
.0 73.3
.5 120.2
and the second second
58 409
74 8,804
17 10
49 9,223
L'ALTER
50 4,850
75 1,655
25 6,505
15 2,050
40 8,555
668
.8 7.8
89 \$1.89
LICH M
25 \$3.20

Ta	ble	.2		NI	he	ət
		1200	1.00	_		

(Million acres)	Projected 1994-1995	Projected 1995-1996	Hilker's Proj. 1996-1997
Acres set-aside & diverte	d 5.2	5.2	
Acres planted	70.3	69.2	75.6
Acres harvested	61.8	61.0	63.1
Bu./harvested acre	37.6	35.8	36.4
Stocks (million bushels)		with an	- Wing
Beginning stocks	568	507	375
Production	2,321	2,185	2,296
Imports	92	68	70
Total supply	2,981	2,760	2,741
Use:	12.22		
Food	852	884	900
Seed	89	104	110
Feed	345	156	300
Total domestic	1,286	1,144	1,310
Exports	1,188	1,241	925
Total use	2,474	2,385	2,235
Ending stocks	507	375	506
Ending stocks, % of use	20.5	15.7	22.6
Regular loan rate	\$2.58	\$2.58	\$2.58
U.S. season average	To State	131.84	and in
Farm price, \$/bu.	\$3.45	\$4.50	\$4.40

(Million acres)	Projected 1994-1995	Projected 1995-1996	Hilker's Proj 1996-1997
Acres planted	61.7	62.6	64.3
Acres harvested	60.9	61.6	63.4
Bu./harvested acre	41.4	34.9	35.8
Stocks (million bushels)	20.21	13 3 3 3 1	11 - 10
Beginning stocks	209	335	170
Production	2,517	2,152	2,270
Imports	5	5	5
Total supply	2,731	2,492	2,445
Use:	DARE 1	100	
Crushings	1,405	1,365	1,355
Exports	838	840	815
Seed, feed & residuals	153	117	115
Total use	2,396	2,322	2,285
Ending stocks	335	170	160
Ending stocks, % of use	14.0	7.3	7.0
Regular loan rate	\$4.92	\$4.92	\$4.97
U.S. season average	100	S. Labora	1 alerta
Farm price, \$/bu.	\$5.48	\$6.80	\$7.50

Table 3 — Soybeans

Jly

VanDyk hopes that a recent meeting held by the MSU Extension Service in the area will help to match cash crop farmers facing similar crop conditions up with livestock producers to help him meet his feed needs. He's also increasing his cull rate and "getting rid of anything that's not making money."

That's a good strategy, says Robb, since the hay crop was equally disappointing. A late first cutting, combined with the dry summer and a heavy infestation of leaf hopper has left many silos and hay mows empty, and pushed prices as high as \$170 per ton for hay. "We never had any drop in the price of hay like we normally do when you come into a new crop of hay," Robb said. "A lot of the hay ground was also plowed up last spring for \$5 corn as well."

Robb also expects the price of corn to be at a premium in Ottawa and Allegan counties, an area notoriously short of corn due to its large scale corn demand for swine and poultry operations. He says that corn has been at a \$1.25 premium over the Chicago Board most of the summer, and he expects that to continue. "Normally we have a negative basis of 32 cents off of Chicago - but we're probably going to have a premium-plus basis here for a while," Robb predicted.

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USDA



September 30, 1996

Strategies

John D. Jones, Telfarm Director and **District Extension** Farm Management Agent, Department of Agricultural Economics, Michigan State University Extension



ichigan's dairy farms are getting bigger. This shows what a few of the larger ones achieved in 1995, compared to smaller farms. The data source is Michigan State University's Telfarm accounting system. Farms in the system were included if milk made up 70 percent or more of income, and if the records were complete. This is not a random sample.

For the size groups in Table 1, going from small to large, the number of farms were 32, 34, 31, 40 and 9, respectively. Some of the 9 farms in the 300+ cows group are also among the 40 farms in the 150+ group. The 150+ group had an average of 253 cows. The 300+ group averaged 528 cows. Income

Table 1 shows the average management income for each group. This is a profit measure. Income includes inventory changes. Costs include a noncash charge of about 6.5 percent interest on equity, plus \$6.70 per hour for unpaid operator and family labor. For this sample of farms, size groups do not correlate well with net income.

Table 1 — Management Income and Production Factors, Michigan Telfarmers, 1995

Number of Cows	Mgmt. Income	Milk Sold Per Cow	Production Cost/Cwt.	Acres Farmed
	S Per Farm	lbs.	S Per Cwt.	Per Cow
<65	(20,294)	16,285	14.46	7.0
65-99.9	11,269	18,845	11.71	5.5
100-149.9	(1,326)	20,729	12.38	5.7
150+	(27,885)	20,322	12.55	3.3
300+	46,332	21,732	11.28	2.6

Quackgrass control in fall with Roundup Ultra

by Jim Kells, Crop and Soil Sciences all is an excellent time to control quackgrass with Roundup Ultra. Harvested silage corn and wheat fields are ideal sites for fall quackgrass control. Ideal timing is from early September to mid-October. The question often asked: How late can I treat quackgrass with Roundup Ultra? Rather than worry about the calendar, it is best to determine if the field meets the following criteria:

 Ouackgrass at least 6" tall, green, actively growing, and not covered with crop residue (corn stover).

Business Sizing up dairy farms

The 9 farms with 300 + cows made a lot more money in 1995, on the average, than did the smaller farms. They also sold the most milk per cow, had the lowest cost of producing a hundred pounds (cwt.) of milk, and farmed the least acres per cow. But, the 300 + cow group averaged to sell over \$50,000 of cash crops including corn, soybeans and wheat. The acres are both owned and rented. Those with fewer than 65 cows had about \$10,000 of cash crop sales.

The per cow columns in Table 2 pertain only to the milk-producing side of the business. Feed cost includes purchased feed plus "buying" the farm-produced feed at a conservative market value. Management income for the whole farm in Table 1 was split between cows and crops in Table 2. It appears dairy farmers lose money on their cropping side; most recover it on the cow side. Our records show this has been the case for over 2 decades.

Table 2 — Dairy Income per Cow and per Acre, Michigan Telfarmers, 1995 Number Dairy Feed Non-feed

of Cows	Income		Costs		Income
<65			Per Cow \$1,211		Per A (\$26)
65-99.9	2,701	1,354	1,139	208	(12)
100-149.	9 2,874	1,472	1,291	111	(21)
150+	2,770	1,392	1,283	95	(61)
300+	3,028	1,292	1,352	384	(114)
			-		

Cost

The feed costs are split up in Table 3. "Other feeds" are nearly all cash purchases. They include heifer feed, minerals and protein supplements. It appears the 300+ cow farms tend to feed more corn silage and less hay crops, while buying more of their high energy feeds. Remember, size is related to production per cow, which in turn influences feed costs.

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Number	Corn, Oats	Corn	Hay &	Other

& Barley	Silage	Pasture	Feeds	
223	142	582	438	
184	152	570	448	
289	142	532	509	
235	186	309	662	
119	229	210	734	
	223 184 289 235	223 142 184 152 289 142 235 186	223 142 582 184 152 570 289 142 532 235 186 309	223 142 582 438 184 152 570 448 289 142 532 509 235 186 309 662

Machinery

We often think big farms have the ability to "spread their overhead" across more units, thus driving down investment per unit. This should mean lower annual operating costs per cow and per acre. Study Table 4 and find that we think wrong when considering machinery and equipment! Building investment and annual costs show a pattern similar to Table 4.

Table 4 — Machinery: Crops vs. Dairy, Michigan Telfarmers, 1995

Number of Cows <65	Crops Invested 91	Machinery Costs 65	Dairy Invested 170	Equip. Costs 136
65-99.9	88	92	163	143
100-149.9	103	91	161	151
150+	159	112	243	160
300+	151	118	231	150

Managers invest in machinery to reduce labor costs. The average dairy labor cost (operator + unpaid family + cash hired) going from small to large groups was \$456, \$362, \$382, \$356, and \$379 per cow, respectively. It's tempting to say the 300+ group invested (231-170) \$61 more in dairy equipment per cow than did those with less than 65 cows, and thereby saved (456-379) \$80 per cow in dairy labor costs. Do the same calculation comparing the 100-149.9 and the 300+ group, and size advantage is not as clear!

Before you decide to invest in a 300+ cow dairy farm, look carefully at your own cost accounting records. The above Telfarm data indicates there's a lot of variation from farm to farm hidden behind the averages. More cows may not be the only way to make more profit. But, the biggest 9 farms in this sample averaged to do well in 1995. If they can maintain their low cost per cwt. of milk, they'll likely survive in the future.

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- No visible signs of frost injury on quackgrass leaves (quackgrass can tolerate light frost without damage, so the occurrence of a frost does not preclude the use of Roundup Ultra later in the fall).
- Minimum daytime high of 50°F (60°F preferred). No risk of rain for at least six hours.
- Wind less than 10 mph.

If all five criteria are met, fall Roundup Ultra application should be very effective on quackgrass. Remember that the likelihood of meeting all five criteria diminishes as we get later into the fall.

For best results, Roundup Ultra should be applied at a rate of at least 1gt/A. Add both ammonium sulfate (AMS) at 17lbs/100 gal to the spray solution (always add the AMS to the tank first). Tankmixing may reduce Roundup Ultra activity on quackgrass (antagonism) and should be avoided if the target weed is quackgrass. If 2,4-D ester is tankmixed with Roundup Ultra, it is suggested that the Roundup Ultra rate be increased (by 1 pt/A) to compensate for possible antagonism. Be sure to add AMS if tankmixing with 2,4-D ester.



September 30, 1996



Weather Outlook

by Dr. Jeff Andresen, Agricultural Meteorologist, Department of Geography, Michigan State University



very slowly-moving trough and associated cool, damp conditions across the Great Lakes region in mid-September moderated what had been a very warm and dry 30-day period (from mid-Au-

gust through mid-September). Mean temperatures for the period generally ranged from 1-3°F above normal. Precipitation was highly variable, ranging from less than 50 percent of normal in western sections of the state to more than 200 percent of normal in the east. A significant portion of the moisture in the eastern Lower Peninsula came courtesy of the remnants of Hurricane Fran, which moved through the eastern Lakes region on the 6th-8th. The widespread heavy rain that accompanied the storm fell over an extended time, which was nearly perfect for easing moisture stress for most summer

Long-lead outlooks still call for a greater than normal risk of cool, damp weather in the coming weeks, which if correct will mean fewer than normal field work opportunities. A mid-1980s MSU study by Roy Black and other scientists generated non-harvest field work probabilities on a given day at several Michigan sites during the growing season based on climatology. During the fall season, the percentage of days suitable for non-harvest field



operations ranges from approximately 50-60 percent September into October, then falls rapidly to less than 20 percent by mid-November in response to cooler and cloudier weather. Even more than usual, growers should be prepared to take full advantage of any weather breaks that do develop.

FARM BUREAU QUICK FACTS

U.S. agricultural exports will decline by \$2 billion in the next fiscal year. The main reasons for the dip are tight domestic supplies and stiff international competition. This year's total exports were a record \$60 billion.

About 80 percent of the pears grown in Michigan are the Bartlett variety, a pear with yellow skin and a smooth, juicy flesh. Differing from most fruits, the best fresh eating pears are picked immature and allowed to ripen for a few days. Those left on the tree mature from the inside out and are usually soft with a gritty, coarse texture.

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		Sun		A PORT OF A LAND		
8/16/96-9/15/96	Te		rowing	Degree Da I Normal Acc.	Actual (inch)	kcip. Norma (inch)
Houghton	63.5	3.1	1518	1758	1.81	3.94
Marquette	63.0	3.3	1600	1758	4.18	3.94
Escanaba	62.8	0.4	1491	1537	0.68	3.60
Sault Ste. Marie	63.4	2.8	1410	1537	1.87	3.60
Lake City	65.6	2.3	1824	1991	4.55	3.40
Pellston	64.8	3.4	1820	1991	3.02	3.40
Traverse City	68.2	2.5	2135	1991	2.54	3.40
Alpena	65.7	3.2	1796	1925	4.52	3.29
Houghton Lake	64.8	1.0	1853	1925	5.53	3.29
Muskegon	68.2	1.4	2097	2201	2.41	3.59
Vestaburg	66.8	0.3	2123	2277	3.79	3.41
Bad Axe	66.7	0.0	2022	2306	7.15	2.70
Saginaw	68.9	1.8	2384	2306	3.65	2.70
Grand Rapids	69.6	2.3	2412	2548	0.99	3.14
South Bend	69.6	1.0	2512	2548	1.46	3.14
Coldwater	67.9	-0.4	2357	2486	3.07	3.03
Lansing	67.2	0.0	2290	2486	2.72	3.03
Detroit	70.5	1.6	2667	2502	2.82	2.83
Flint	68.5	2.0	2362	2502	1.61	2.83
Toledo	70.5	1.8	2727	2502	1.52	2.83

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September 30, 1996

Muskegon plant to produce new "Liberty" herbicide

he latest advance in corn weed control, Liberty Link, will soon have a strong Michigan connection. AgrEvo North America has broken ground at its west-central Michigan location in Muskegon Township for a new facility for the production of the new Liberty herbicide. The manufacturing facility will be located in Muskegon Township adjacent to AgrEvo's existing operation that produces bendiocarb-based environmental health and professional turf market products.

Company officials expect the new 42,000square-foot manufacturing plant to be fully operational and producing Liberty herbicide in time for the 1998 growing season. Once completed, the plant is also expected to produce another 70 jobs for the local economy.

AgrEvo is in the process of introducing their Liberty Link System in the U.S. following successful introduction in Canada in 1995. The company expects to have the system available to U.S. producers in time for the 1997 growing season.

Following an Environmental Protection Agen-

Liberty Notes

- Liberty supports crop rotations. Since Liberty does not persist in the soil, there is no carryover or risk to crop rotations, even to hybrids and varieties that are not Liberty Link
- Tillage is an option. Following an application of Liberty, growers may opt to use tillage for weed control instead of Liberty or other herbicides. This helps growers practice Integrated Weed Management that includes a variety of weed control methods, including mechanical, chemical and cultural (rotations).
- Liberty does not have a lengthy residual. Liberty destroys the weed, usually within as few as three days, and as the plant deteriorates (and whenever Liberty touches soil), the glufosinate-ammonium quickly breaks down into natural compounds. In resistant plants, the glufosinate-ammonium remains present until the plant is destroyed by harvest, but in an inactive form.
- Liberty can be used with many other herbicides. Liberty can be used after pre-emergent herbicides or can be tank mixed with atrazine for residual and added impact on certain troublesome weeds.

Exciting technology in weed control is expected to receive full registration this fall



Management officials celebrate "ground-breaking" technology at its west-central Michigan location in Muskegon Township for a new facility producing the new Liberty herbicide.

cy Experimental Use Permit in March of this year, the agency also established temporary tolerance levels for residues of the active ingredient in Liberty. glufosinate-ammonium, and its metabolites on treated corn and soybean commodities, according to Jeff Springsteen AgrEvo's Market Manager for Liberty.

"Liberty Link Seed corn is being produced this year by virtually every major national seed company and most regional companies," Springsteen said. "Their excitement about the Liberty Link System has been building with each step along the registration process and each field day they've conducted." **How Does it Work?**

According to weed scientist Dr. Ian Heap, the Liberty Link system will provide growers a new strategy for managing weeds resistant to conventional herbicides. "Liberty Herbicide has a unique mode of

action, and rotation of Liberty and the Liberty Link System with other herbicides provides a change of herbicide mode of action that adds another tool for both resistance management and prevention," Heap explained.

Liberty's mode of action involves the inhibiting of a key enzyme in the green tissue of weeds called glutamine synthetase. The enzyme usually metabolizes the weed's ammonia, a natural byproduct of photorespiration and other plant processes. But when Liberty (glufosinate-ammonium) is present, the enzyme activity is inhibited, the ammonia builds up in the plant and it dies.

When researchers identified a gene that gives plants the ability to resist the action of glufosinateammonium, that gene was then incorporated into the genetic make-up of corn plants. These Liberty Link corn hybrids are now being produced by most

seed companies under an open access licensing policy with AgrEvo.

The fact that Liberty provides a mode of action not previously used in corn and soybeans will be an advantage in managing weed resistance, says Heap. The original gene that scientists discovered and moved into corn and soybeans to confer resistance to Liberty came from a naturally occurring soil bacterial strain. Weed species do not produce this bacterial strain, and thus have no way to metabolize glufosinate-ammonium, making weed resistance to Liberty unlikely since the weed would have to develop a new metabolic process.

More kids eat breakfast, but 27 percent still don't

recent study commissioned by the National Dairy Council showed more children than in the past are eating breakfast each day, but the data also showed that 27 percent of school-age kids still miss the "most important meal of the day."

"It is very encouraging to see from the survey that a majority of children are eating breakfast regularly. We hope this is a positive trend that will continue," said Tab Forgac, vice president of Nutrition Services for NDC. "We plan to help by communicating the importance of morning meals to parents and their children in order to reach those kids who are not eating breakfast every day.'

The survey of 600 children, ages 8 to 13, found that 84 percent of those polled eat breakfast at least five times a week. Of those surveyed, 73 percent eat breakfast each day. Six percent of those surveyed who eat a regular breakfast do so out of the home. possibly with the assistance of the national School Breakfast Program.

Whether children eat breakfast at home or at school, they are getting nutrients critical to their growth and development," said Marianne Neifert, M.D., a pediatrician and author, also known as "Dr. Mom." "Without an adequate breakfast, a child is not likely to consume the 40-plus nutrients needed each day."

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Fresh silage can contain a deadly threat to health

armers making corn silage need to be mindful about the danger of nitrogen dioxide silo gas — which can accumulate in the silo. The silo gas risk may be higher this fall than in years past because the unusual growing season may have contributed to higher than normal nitrate levels in corn. Exposure to silo gas can cause per-

manent injury or death. "The highest concentrations of nitrogen oxides usually occur 48 hours after the silo is filled, but no one should go into a silo for four to six weeks after filling," says Howard J. Doss, Michigan State University Extension agricultural safety specialist.

Nitrogen dioxide, which is heavier than air, may form yellowish layers of mist above the silage or drain down the silo chute. The strong silage odor can mask nitrogen dioxide's bleachlike odor. It may be present even if you can't see or smell it.

Highly concentrated silo gas can kill a person in a matter of seconds, along with anyone who attempts a rescue.

In low concentrations, silo gas damages the respiratory system when nitrogen dioxide combines with moisture in the lungs to form nitric acid. This acid can severely and permanently damage respiratory tract tissue.

Silo gas injury symptoms include severe irritation that may lead to inflammation of the lungs, though the victim may feel little pain or discomfort. Exposure symptoms — shortness of breath, a faint feeling and flu-like illness — can frequently be delayed for several days.

Frequently, a relapse with symptoms similar to those of flu or pneumonia occurs one to two weeks after initial recovery from silo gas exposure.

"The majority of people who develop initial silo gas exposure symptoms could also develop secondary ailments," Doss says. "For this reason, it is extremely important that anyone exposed to silo gas seek medical attention, regardless of the degree of these symptoms.

"If there is a dire need to enter the silo, wear a self-contained breathing apparatus," Doss warns. "Wearing anything less could be deadly to anyone inside the silo during the first four to six weeks after silo filling." Self-contained breathing apparatus can be obtained through most safety equipment suppliers and some farm catalogues.

If you must enter the silo during or just after filling, follow these general procedures:

- Open a door above the silage level to allow any silo gas present to drain out of the silo.
- Run the blower at the base of the silo 15 to 30 minutes before entering to let fresh air in above the silage.
- Always wear a self-contained breathing apparatus when entering the silo within four to six weeks after filling.
- When entering the silo after the four- to six-week waiting period, ventilate the silo chute for 10 to 15 minutes and open several hatches to remove pockets of gas.
- Do not work alone in a silo. Always work in pairs so someone can go for help in an emergency. Farm employees must follow the state of Michigan regulations for entering a confined space.



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IMI/Liberty-resistant corn nears commercialization

n 1997, ICI/Garst expects to introduce the seed industry's first example of a corn hybrid developed by gene stacking — a process that makes the hybrid resistant to both IMI and Liberty herbicides. The introduction is contingent on yield results of test plots this fall and finalizing commercial arrangements with all companies involved.

The new gene-stacked hybrid is like others in the sense that any of the traditional herbicides labeled for weed control in corn can be applied. What makes this hybrid unique is the fact that it is the only one to have built-in resistance of two of the newest chemistries in the corn market today. The new corn hybrid will resist the imidazolinone herbicides from American Cyanamid, which are Contour®, Resolve® and the soon-to-be-registered Lightning", and will also resist the glufosinate-ammonium based herbicide Liberty®, from AgrEvo. This year ICI/ Garst is testing several stacked hybrids at an advanced stage across a wide maturity range from 106 to 111 days. The company expects to introduce one IMI/Liberty hybrid in 1997 with more planned for 1998.

Advantages to growers

The advantages to corn growers of choosing multiple-resistant hybrids are many, explains Alan Hawkins, product development manager for ICI/Garst, based in Slater, Iowa. "The differing modes of action of two herbicides reduce the chance of resistance developing in weeds."

"These new hybrids will add maximum flexibility, management options and a safety factor," says Jeff Sernett, development agronomist for ICI/Garst. "There is always a risk of Liberty being put on an IMI-Corn" or IMI-based product put on a Liberty-resistant hybrid." In both scenarios, severe to total crop loss would occur, he adds. "If this resistance can be combined within a single plant, then growers don't have to worry about which hybrids are located in what field." Sernett says. The next generation is herbicide-resistance crops. "Fundamentally, crops and weeds are really very similar, making it difficult to find a chemical totally effective on weeds without damage to the crop," Hawkins explains. "As a result, many of the selective treatments have been complex in terms of mixtures, sequence and timing, and the producer has had to make difficult choices of what products to use. Now, by putting a specific resistance mechanism into the crop, a difference is created between that crop and weeds. Ultimately, the producer should get much better, safer and simpler weed control systems to use." In 1991, ICI/Garst became the first seed company in the industry to introduce herbicideresistant seed by developing the first imidazolinone-tolerant (IT) corn, known as IMI-Corn. ICI/Garst's IMI-Corn sales have jumped dramatically each year for the company, and now account for more than 30 percent of the compa-

ny's overall corn sales. Industrywide, IMI-Corn accounts for more than 2 million planted acres. Contour and Resolve are registered trademarks of American Cyanamid Company. IMI-Corn and Lightning are trademarks of American Cyanamid Company Liberty is a registered trademark of AgroEvo.



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Considering alternative uses for immature soybeans and dry beans? Look before you leap!

ot a field of soybeans that will never mature before the first frost? If so, you've got a lot of company, and a few options, including harvesting the crop as a forage, or combining the immature beans for livestock feed, says MSU's Herb Bucholz. However, proceed with caution since there are virtually no recommended guidelines or experience with using the crop as silage. As a Forage

Although feeding soybean forage isn't commonplace, a shortened growing season, combined with a serious shortage of livestock feeds in many areas of the state may have livestock producers seriously considering the idea. According to Wisconsin research, soybeans harvested as a forage will yield tonnage similar to first cutting.

"First, producers need to ask whether the soybeans have been sprayed with any herbicide that the label says cannot be used as an animal feed," Bucholz advised. "Secondly, there is not a lot of experience in Michigan harvesting soybeans. There are a lot unknowns in trying to harvest soybeans as silage."

One of the bigger unknowns is the time required after cutting to reach the crucial 70 percent or lower moisture level recommended for proper fermentation. Harvest over 70 percent and you'll end up with fermentation problems that will result in livestock going off feed. Harvest too dry and you'll end up suffering unnecessary leaf loss and have difficulty in getting a good pack.

Controlling leaf loss is crucial since it accounts for a large part of the plant's dry matter and protein content. Don't be tempted to open up the conditioning rules either, since the stalk of the plant needs to be crimped for proper drying, says Bucholz. "If we get a week to 10 days of overcast weather, I'm sure the bean silage will start to rot in the field," he said.

Should you use an inoculant? Bucholz recommends it only when temperatures are cooler — below 50°F for several days in a row. If the beans have already frozen, odds are leaf loss is already high enough that you shouldn't consider harvesting the bean as a forage. "If the leaves are really starting to fall off and the haybine goes through there, you're going to end up with stems and pods for silage and there's not much value there. If the stems are starting to get dry and woody, the fiber content is going to be extremely high and poorly digestible," he said.

Bucholz recommends that the total amount of soy silage fed be limited to no more than 25 percent of the total ration. If feed inventory allows it, Bucholz recommends reserving soy silage for early dry cows and heifers. If it must be used on lactating cows, use it on low-end producing cows first. "I'd have a tendency to stay away from using soybean silage on close-up dry cows, transition groups with fresh cows and your high-producing cows," he said.

In the final analysis Bucholz suggests that producers consider the risk of soybean silage, and consider the economics of harvesting immature corn for silage as opposed to soybean silage. "There may be better profitability in harvesting some less desirable corn, from a grain standpoint, as a corn silage, and play the wait and see on the soybeans, and perhaps harvest them as an immature bean, particularly with the price of soybeans this year," Bucholz suggested. **Feeding Immature Beans Only**

If you elect not to harvest your soybeans as a

Don't worry about that yogurt school lunch just yet



forage, the next option is to harvest the beans as you normally would, with a combine, with the express intent of feeding the beans. Research in South Dakota has shown that immature soybeans make an acceptable feed source, says Bucholz.

While the protein content will be similar to fully matured soybeans, the fat content will vary considerably and can be as low as 10 percent. "These beans should be sent to a laboratory for feed analysis, particularly for fat content, Bucholz said. It's very important that producers instruct the lab to conduct a fat analysis.

However, before jumping on this option, realize the beans need to either be roasted, which could be difficult this year because of demand, or run through a regular crop dryer at a temperature of at least 220°F to reduce the levels of a digestive enzyme inhibitor. Drying will also improve storability of the beans (South Dakota research also showed storage problems with immature beans, even those field dried to 15 percent).

"That will make the beans unacceptable for commercial use, but as a livestock feed, that would assure that they're properly dried and will store well," Bucholz advised. "And, that temperature, depending on how long they're maintained at that level, may inactivate some of the digestive enzyme inhibitors. But unless that bean is heated totally clear through, the enzyme inhibitor will not be totally inactivated."

Immature dry beans can be handled in much the same manner, except that the enzyme inhibitor is not a problem as it is with soybeans. However, the heating or roasting will help the palatability of the dry beans.

Bucholz recommends limiting feed intake of soybeans or dry beans to no more than five pounds per head per day. The beans should be rolled or cracked prior to being fed to aid in digestion.

Maturity	D.M. Yield (Tons/A)	D.M. (%)	Protein (%)	ADF D.M.	NDF D.M.
Blooming		1.1	18.9	20.1	28.2
Pod Formation	1.7	18.3	18.1	31.9	43.1
Seed Formation	2.5	20.3	18.2	33.7	45.7
Near Maturity	3.3	34.2	19.2	29.7	40.7

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AIRPORT TAXES OR FEES	INCLUDED
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SALES TAXES	INCLUDED
TOTAL	\$135.00



School children who weren't exactly licking their chops anticipating yogurt for lunch can relax. According to the Public Voice for Food and Health Policy, it could be years before school lunches comply with the Agriculture Department's mandate requiring schools to serve "healthier" lunches.

One of the plans called for schools to replace red meat with yogurt. Another is to have schools replace fried chicken with a baked variety.

Schools were supposed to have the new menus ready before the start of school this fall. School systems, saying they need more time and funds to comply, can request an extension from USDA.

The federal government, at an annual cost of \$5 billion, provides lunch for about 25 million children at 94,000 schools each day through the federal School Food Program. The American Farm Bureau Federation, while recommending that the school lunch program be improved, urges that school meals be balanced to provide no less than one-third of the recommended daily dietary allowances, which includes red meat. Farm Bureau opposes reduction of the minimum requirements for red meat in the School Food Program. \$69 \$79

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Michigan soybean producers — growing for the market

t's a small start, but it's a start that could hold great potential for Michigan soybean producers. Just over 1,100 acres of a special soybean, grown under contract with Pioneer Hybrid International, offers producers a 20-cent premium and it offers the new Zeeland Farm Soya (ZFS) soybean processing plant an opportunity to produce a superior soy oil product.

The new soybean is 50 percent lower in saturated fat compared to conventional soy oil, and is equivalent to oil produced from canola, according to Lonnie Miesner, production manager of Identity Preserve Systems for Pioneer's Nutrition and Industry Markets Division. He hopes the new soy oil will attract the attention of food processors and the industrial market to eventually compete head to head with canola oil.

Climate and the size of the ZFS facility both lent themselves well to the development and testing of the new soybean and oil. Identity preserve, or IP requires that beans be stored and processed separately from conventional soybeans, says Miesner.

"When you process an IP bean, it takes the first hour or two to flush the system before you know you have pure IP low-saturate oil," Miesner explained. "The size of ZFS's facility doesn't take a tremendous amount of beans to flush the system. When you're in the market development stages and you're working with smaller quantities, a place like ZFS works very, very well."

According to Miesner, the low-saturate fat soybean varieties prefer a cooler growing season that helps to dry the saturated fats down as low as possible. The Pioneer variety, 9243, is a mid group two variety. "So for that area, the 2.4 to 2.6 soybean maturity works out real well there," he said. Pioneer is currently testing two other soybeans bred specifically for the oil market.

ZFS President Cliff Meeuwsen calls the poten-

Product-specific soybean could take advantage of multi-billion pound cooking oil market



"We can do all the production we want, but if we can't sell it we have a problem," Elliott cautioned. "It would be our hope that we can develop this market all the way up to consumer base for low-fat oil, and that as that demand goes up, we can supply the product."

tial of the specialized bean an exciting opportunity for all parties involved. "I have hope that in the future we'll be able to produce a specialty product that benefits the farmer in getting more money for his beans, and benefit us in getting more money for our oil," he said. "With this size plant and with the area that were located in, we could easily produce and process a value-added bean."

The 20-cent premium, paid by Pioneer, is over

and above the regular price locked in by the producer at ZFS. ZFS is also providing storage for the IP project, by devoting one 50,000-bushel bin to hold the beans until processing.

A majority of the acreage is located in northern Allegan and southern Ottawa counties, with approximately 200 acres being produced in the Snuffled area. Mike Elliot, Pioneer Hybrid district sales manager for the area, says the company will be conducting yield checks to determine how well the soybean stacks up to conventional varieties. One yield trial in Indiana showed the 9243 variety with a one-bushel advantage.

Although the acreage and number of producers is limited currently, future growth will hinge on the success of marketing the finished product, oil, in the marketplace.

"We can do all the production we want, but if we can't sell it we have a problem," Elliott cautioned. "It would be our hope that we can develop this market all the way up to consumer base for low-fat oil, and that as that demand goes up, we can supply the product."

Elliot predicts that the trend of growing a crop for a specific market has tremendous potential, not only in soybeans, but the corn market as well. Pioneer has hired nutritionists to study diet requirements for poultry, swine, beef and dairy to see how the company might breed corn specifically for various livestock rations.

"Over 80 percent of the corn produced today is fed to something, but it has different uses. Cattle need a different starch content than do pigs than do chickens. If we can grow it, then it's a value-added product for us to provide to the first customer," Elliot explained. "I think this is just the tip of a big iceberg, but it's going to be a slowly emerging one."

According to Miesner, Pioneer is already testing two experimental varieties in Ohio that could be made available for commercial production next year specifically for livestock producers and IP production. Locally, the seed company hopes to continue the IP soybean project in Michigan another year.

"We'll be talking to our marketing people and determining whether we want to in fact go with another 1,100 acres or possibly increase that slightly, Miesner said. "We hope to be able to announce the program, if it's going to be done, by early November."

Bedding with sand?

Remove it from your manure and save wear and tear on your equipment

or many Michigan dairy producers, sand provides a convenient form of bedding that allows for excellent cow comfort and udder health. But when it comes to handling the gritty substance, the effectiveness of sand grinds to a halt. Until MSU's Ag Engineering Department, McLanahan Corp. and MBI developed an innovative sand separator to deal with the problem.

"It soon became evident to us that many farmers valued sand so highly that they were going to use it regardless of the problems with storage handling and what it did to equipment," stated Bill Bickert, MSU agricultural engineering professor. "Rather than figuring out how to deal with the sandladen manure, if we could figure out a way to have the sand removed from the manure before it went into storage, then that opened up a whole variety of handling techniques that have been used for a long time for liquid manure, just the sand isn't present."

That is just what Bickert and beginning graduate student Andrew Waedle set out to do four years ago, beginning with laboratory experiments, separating spoonsful of manure, graduating to shovels until finally dealing with skidsteer buckets full. animal initiative funds, we spent some of the coalition's allocated funds from animal initiative on equipment, and the good news is 18 months later we think we have the solution to the problem."

According to Bickert, the principle behind building the prototype sand separator, demonstrated in early September at Webster Farms in Elsie, begins with breaking the sand-laden manure down into small parts and metering it into the separation unit. "Once that happens, we then introduce water into the system to provide dilution but more importantly to provide washing of the manure solids and the sand," he explains. "What we're trying to do is to disperse the slime that's in manure. That's the mucous materials that are there naturally. We want to disperse those mucous materials so we end up with the sand and the organic particles acting independently."

"We basically are trying to keep the manure particles in flotation, letting the heavier sand particles settle out," Bickert continues. "In this particular separator, the lighter organic particles stay with the liquid stream — there's an overflow at the back of the device, so they go out the back. So now the manure stream has the mucous materials, the added water, the manure solids, and then settling to the bottom will be the sand particles."



MSU and McLanahan Corp. demonstrated to over 150 producers a prototype of their new sand separator at Elsie's Webster Ridge Farm near Elsie. The machine uses water and air to separate sand particles from manure, making handling animal waste simpler and reducing wear on equipment.

went into the freestall originally. If bacteria is a

make sure that it's properly engineered into the

The necessity of the project jumped to the forefront almost two years ago according to Dr. Robert Von Bernuth, chair of MSU's agricultural engineering department and director of manure management efforts for the animal initiative.

"It became very obvious to us that we needed to invest a lot of time and effort in solving this sandladen dairy manure problem," Von Bernuth states. "The department hired a full-time technician on



A secondary spray as the sand is augered out washes any remaining particles off the sand. If bacteria is a concern, a chlorine wash can be used here to sterilize the sand.

How much water is added?

According to Bickert, the cost/benefit ratio and profitablity of adding water and hauling it to the field outweighs the limitations placed on sand-laden manure. "We can't pump sand-laden dairy manure a mile — while we can pump liquid manure a mile," he explains. "In fact, we can use some land application techniques that we couldn't use otherwise. We really can't irrigate sand-laden dairy manure. We can irrigate liquid manure without sand in it."

"We're adding about 1 pound of water for every pound of sand-laden manure," he explains. "That doesn't necessarily have to be potable water — we think that eventually we might have a twostage pond system and be able to recycle liquid from a second-stage pond through this device."

What about bacteria?

According to Bickert, the sand separated from the manure contains little bacteria, at times even less than what was originally placed in the stall.

"Less than 1 percent is what our typical findings are at this point," Bickert explains. "In fact, in one case, in one of our previous units, we ended up with sand coming out cleaner than the sand that problem, our final rnse could be a chlorine solution and we could just disinfect it if we had to."

Commercial production

After all the lab experiments were completed, the sand separator still needed to be an economically viable option for producers manufactured commercially. So Ag Engineering approached Pennsylvaniabased McLanahan Corp. for their assistance in producing the prototype and eventually mass-producing units for all sizes of dairy operations. McLanahan Corp. happens to be the oldest family-owned, continuously operated iron foundry in the country.

"It (the prototype separator) was tested first at Al Pung's farm and we changed some of the initial parameters of the machine," explained Mike McLanahan, president of McLanahan Corp. "It worked even better than we had anticipated and as a result, we decided to pursue this matter further. MBI has taken out a patent on the system and we have signed an agreement with them for the exclusive international sales of this patented system, and we're ready to go."

"Manufacturing the machine is not the problem," McLanahan states. "We could manufacture the machine in four to six weeks. What we want to do is taking the products away from it correctly and the most efficient manner. We don't want to just sell a machine; we want to engineer the system completely so that it goes in and operates from day one."

Sound too good to be true?

"Realize there are some limitations as to the kind of sand we use," notes Bickert. "The very fine sand, like beach sand, presents some real problems for us. It doesn't separate as well — it tends to float like the organic solids do. And so, at this stage of the game, we really would be looking at the concrete sand or as it's graded in Michigan, 2NS. This is basically white sand that you buy — a little coarser material. And we can do a good job with that."

The cost of a sand separator with a 20-inch auger, twice the size of the prototype on display, will be approximately \$20,000-\$25,000, according to Bickert.

"The prototype 10-inch augered model, if it ran continuously, would handle maybe 15 cows worth of manure an hour," stated Bickert. "In an eight-hour day, you could have a 100-cow dairy for this size.

For more information on the sand separator system, contact McLanahan Corp. at (814) 695-9807.



C.P. Ag.-CCA,

MICHIGAN FARM NEWS

September 30, 1996

Agriculture

Perry M. Petersen, Corporate Manager, Precision Agriculture, Terra Industries Inc.

recision agriculture's impact isn't isolated to farm fields. Many agriculture retailers are adapting their products and services to accommodate what may be one of the most significant crop production advances in the last 50 years. Farmers are looking to their ag retailers for more than just seed, fertilizer, crop protection chemicals and basic agronomic services. They want information on how to integrate precision agriculture into their crop production systems. And they want help maintaining and analyzing the huge amounts of soil and crop information collected with precision agriculture technologies.

For both retailers and farmers, precision agriculture boils down to one thing: information. Precision agriculture's real value to the farmer is providing information that allows him to make better decisions about his crop production system. To differentiate themselves from competitors, ag retailers are providing customers with information and training on implementing precision agriculture, and offering products and services that help customers collect, store, analyze and use information about their crop production systems.

As more and more farmers adopt elements of precision agriculture, some ag retail outlets may

evolve into precision agriculture information/service centers. These "super stores" will provide everything a farmer needs to take full advantage of the new technologies associated with precision agriculture. The retailer will make available all the products, services and information resources a farmer needs to better identify and control variables in his cropping system.

Here is what a farmer may expect to find someday at a precision agriculture information/ service center:

- global positioning system (GPS) equipment
- geographic information systems (GIS) to pull together all the information collected using GPS GPS grid soil sampling services
- complete map production, including printout, that allows the farmer to see all variables affecting yield in a particular field or in specific areas of the field
- crop consultants who can create site-specific management plans with tailored cropping prescriptions designed to maximize production and precisely manage crop inputs for a field custom GPS-guided variable rate application
- of crop inputs
- GPS-guided crop scouting
- database management and storage of all the information precision agriculture technologies can provide
- access to precision agriculture information via the Internet
- training and support for using precision agriculture hardware and software
- two-way FM/mobile phone communication between the retailer and customers
- access to market information via DTN or another similar service

data from retail outlet's own weather station. A farmer interested in developing a site-specific management program based on geo-referenced information doesn't have to wait for his ag retailer to offer all these services. A retailer who offers the



Some ag retail outlets may evolve into information/service centers that will make available all the products, services and information resources a farmer needs to take full advantage of precision agriculture technologies.

following services can help a farmer take advantage now of precision agriculture technologies:

- GPS grid soil sampling
- database management and storage, including analysis of collected information
- GPS-guided variable rate applications
- GPS-guided crop scouting

Date

Oct. 2

Oct

map production and printouts.

Meanwhile, progressive ag retailers, such as Terra, are reshaping their operations to become the total information centers that customers need to

take full advantage of the new technologies associated with precision agriculture.

Terra PRECISION IN AGRICULTURE

Perry M. Petersen, C.P. Ag.-CCA, Corporate Manager, Precision Agriculture Terra Industries Inc.

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Claims: what to do

by Mark Schwandt, special agent for Rain and Hail, L.L.C.

he typical Michigan farmer is diversified enough on their farm that when one crop goes bad another steps up to take its place. That's on a typical year, which 1996 seems to be as far away from as can be. With the adverse weather, disease and abundance of wildlife wrecking havoc with the '96 crops many Michigan farmers are already calling the crop insurance agent asking what to do. The following is a step-by-step process that you can use to assure a quicker and easier claims process.

- Call your agent and have him file a claim as soon as you are sure that a loss is definite.
- If harvest is already in progress, be sure to keep all records separate by unit. If units are combined in the field, the adjuster has to use that production against both unit guarantees. This could lower or erase any payment you would have coming.
- If you are harvesting a crop for a feed source such as silage or destroying it for lack of production, you must leave four rows for every 10 acres in each field for an in-field appraisal. I know this seems unreasonable, but it is the

with either a 578 or a 424 form, which verifies acres, crop and share. You must also supply the adjuster with an aerial map showing the fields where the loss has occurred, whether you have reported your acres or not. If you did not report your acres in '96, you will need to show some proof of share, which can be done with sales receipts, lease agreements or tax receipts

Be patient and don't file a claim today expecting to see an adjuster tomorrow. With the present crop losses already reported and the possibilities of an early frost, heavy rains or continued drought, it looks like it could be a record year for claims. We at Rain and Hail inform our adjusters to make contact with the farmer and the agent as soon as they receive the loss papers. If you do file a claim and have not received notification in a reasonable time frame, contact your agent and have the agent contact the adjuster or field supervisor.

Remember the burden of showing a loss falls in your hands. Have everything ready when the adjuster arrives and the claims process will be faster, easier and far more effective. You should take comfort in knowing that your crops are insured and you are not in this alone. If you have questions about crop insurance, stop in to your Farm Bureau agent showing the blue Rain and Hail sign or call 800-776-4045 for an agent near you.

1996 fall/winter beef cattle sales and events

Time Sale 2:30 p.m. N. Michigan Livestock Assoc. Feeder Cattle Oct. 5 Harding Cattle Co. Production Sale 1 p.m. Oct. 5 Guse Farms Club Calf Sale 5 p.m. Oct. 5 6 p.m. Stanger Farms Club Calf Sale Oct. 6 Plank Simmental Farm Open House & Sale 11 a.m. Oct. 6 1:30 p.m. Kendale/Prairie View Club Calf Sale Western U.P. Beef Breeders Feeder Cattle Sale Oct. 7 12 p.m. Oct. 9 10:30 a.m. Bay De Noc Beef Breeders Feeder Cattle Sale Oct. 11 MLE Fall Feeder Cattle Sale 1 p.m. 12:30 p.m. SWMPHA Fall Show & Sale Oct. 12 Oct. 12 1 p.m. Schunk Farms Club Calf Sale Oct. 13 2 p.m. Michigan Chi Assoc. Club Calf Sale Michigan Limousin Assoc. Club Calf Sale Oct. 13 2 p.m. Thunder Bay Beef Breeders Feeder Cattle Sale Oct. 14 1:30 p.m. Oct. 15 West Branch Feeder Cattle Sale 12 p.m. Oct. 16 2:30 p.m. N. Michigan Livestock Assoc. Feeder Cattle Oct. 17 3 p.m. Fall Feeder Cattle Sale Oct. 18 1 p.m. **MLE Fall Feeder Cattle** Oct. 19 10 a.m. Kitty Kurtis Farms Club Calf Sale Oct. 19 Good Associates Club Calf Sale 1 p.m. Oct. 19 **MLE Fall Feeder Cattle** 1 p.m. Oct. 19 **MLE Fall Feeder Cattle** 1 p.m. Oct. 19 Fall Feeder Cattle Sale 1 p.m. Oct. 20 Triple K Ranch Club Calf Sale 1 p.m. Kaercher Farm Club Calf Sale Oct. 20 2 p.m. Oct. 26 Harwood Farms Club Calf Sale 1 p.m. Tobacco River Farm H 26 erd Disper

Location Gaylord Holly Cassopolis Dundee Crystal Coldwater Paulding **Rapid River** St. Louis Allegan Clare E. Lansing Midland Alpena West Branch Gaylord Owosso Cass City Tecumseh Charlotte Battle Creek Marion Columbus Grove, OH Durand Kalamazoo Ionia Marior

Precision Ag retail outlets evolve into information centers

- only way that an accurate appraisal can be taken and you can receive exactly what you have coming.
- If you have completed harvest, have a copy of the load receipts and a settlement sheet for sold production when the adjuster arrives. This information is vital, especially when quality of the crop is in question.
- If you have reported your crops to the FSA in 1996, you will need to supply the adjuster

September calendar of events

Sales and transfer closing date for wheat and potted nursery is Sept. 30. That is also the last date to change coverage level or price on those crops or to purchase CRC coverage on wheat.

Oct. 20	· p	robucco niter running propersul	TYTCH TOTT
Oct. 26	2:30 p.m.	N. Michigan Livestock Assoc. Beef Cow Sale	Gaylord
Oct. 26	6:30 p.m.	Michigan Simmental Assoc. Fall Sale	Reed City
Oct. 26	7 p.m.	Gustafson Farms Genetic Harvest Sale	Mason
Oct. 30	2:30 p.m.	N. Michigan Livestock Assoc. Feeder Cattle	Gaylord
Nov. 1	1 p.m.	MLE Fall Feeder Cattle Sale	St. Louis
Nov. 2	1 p.m.	Top of the Crop Club Calf & Heifer Sale	Hillsdale
Nov. 2	1 p.m.	MLE Fall Feeder Cattle	Marion
Nov. 10	12 p.m.	Michigan Angus Breeders Sale	Battle Creek
Nov. 14	3 p.m.	Fall Feeder Cattle Sale	Owosso
Nov. 30	1 p.m.	Club Calf/Feeder Cattle Sale	Owosso
Dec. 6	1 p.m.	MLE Fall Feeder Cattle Sale	St. Louis
Dec. 7	1 p.m.	MLE Fall Feeder Cattle Sale	Battle Creek
Dec. 13-1	15	Michigan Winter Beef Show	E. Lansing
Dec. 19	3 p.m.	Fall Feeder Cattle Sale	Owosso

EPA proposes new protection action

nvironmental Protection Agency Administrator Carol Browner is calling for tough, new action on what she called "the environmental threats faced by children." Among the threats listed by Browner were various chemicals, including agricultural pesticides. The EPA administrator pointed out the "unique vulnerability of children" to environmental toxics because of their increased exposure to risks,

which she said included fresh produce treated with pesticides.

The Farm Bureau-backed Food Quality Protection Act, signed by President Clinton, calls for higher pesticide standards for foods children eat. Browner acknowledged the significance of the new law in reducing children's exposure to pesticides. "It requires specific findings that children will

be protected when decisions are made to use particular products on particular crops," she said. She also praised the recently enacted law for allowing easier approval for safer pesticides. "The new law gives greater opportunity to get newer and safer pesticides in use faster."

Browner called for more studies and legislation regarding various environmental threats faced by children. She is pushing for family right-to-know legislation, which could require food eaten by children to be labeled with the kinds of pesticides used on the product. The Food Quality Protection Act already calls for providing increased information to consumers about pesticide use, but Browner said more needs to be done. "We will see tougher standards on balance," she said. 🟉

September 30, 1996

Michigan Farm News Classified

01 **Farm Machinery**

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01 Farm Machinery

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arry County Farm Bureau members Doug and Louisa Westendorp, from Nashville, have recently been selected as the state winning 1996 Outstanding Young Dairy Cooperators (OYDC). They represented Michigan Milk Producers Association's (MMPA) District 2 and the Kalamazoo Local in the annual OYDC conference held Aug. 14-16. The Westendorps were selected earlier this year by fellow dairy farmers in their district to participate in the program.

As the state winning cooperators, the Westendorps will represent MMPA at various industry and association activities. Huron County Farm Bureau members Tim and Debra Kubacki, of Sebewaing, were selected as the runner-up cooperators. They represented MMPA's District 9 in the contest.

Selection of the OYDC is based on the applicant's farming operations, farm-related and community activities, and demonstrated leadership abilities.

The state OYDC conference, held at MMPA headquarters in Novi, is designed to provide information about milk marketing activities, cooperatives, milk testing procedures and other current events within the dairy industry. The contest has been held annually over the past 46 years.

"The OYDC program identifies outstanding young leaders in our organization and provides the opportunity for them to gain a greater understanding of milk marketing activities and MMPA," says Elwood Kirkpatrick, MMPA president.

All 11 of MMPA's district OYDCs will be officially recognized at the 1997 Annual State Delegate Meeting to be held next March.

The Westendorps represent MMPA's District 2, which covers Branch, Kalamazoo, St. Joseph, Allegan, Van Buren, Cass and Berrien counties.

MMPA is a milk marketing cooperative, owned and controlled by approximately 3,400 dairy farmers in Michigan, Indiana, Ohio and Wisconsin.



MMPA is a milk marketing cooperative, owned and controlled by approximately 3,400 dairy farmers in Michigan, Indiana, Ohio and Wisconsin. The Westendorps' Westvale-VU dairy milks 80 registered holsteins and raises hay and corn on 175 acres they own and 125 rented acres. They purchased the Barry County farm over four years ago.

Doug and Louisa are the proud parents of six children, including 11-year old Carlyle, seven-year-old twins Eric and Troy and four-year-old triplets Levi, Brittany and Tina. Besides being Farm Bureau members, they are active in MMPA, the Dairy Herd Improvement Association (DHIA), Michigan Holstein Association and their local church and school.

For being selected the OYDCs, the Westendorps will represent Michigan at the National Milk Producers Association meeting in California later this fall. They will also help to organize the OYDC contest for 1997.

FFA fundraiser assists emergency vehicles

ights flash. Sirens wail. An emergency vehicle screeches around the corner, flinging stones and dust. The night sky, black as ink, blots out all light save that of the headlights.

VROOM! The ambulance zooms past its destination. Why? The address didn't have a light-reflective sign.

Several FFA chapters across the state are selling Number-It signs as a fundraiser. The signs, 14 inches by 3 inches, can be placed anywhere and can be customized for any address. The signs assist emergency vehicles in rural areas by illuminating the address. Unfamiliar drivers are then able to easily determine if they have the right location.

To get a Number-It sign, contact your local FFA chapter or call Richard Karelse at (517) 335-0378.



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