Michigan-made potato equipment sets new standard

Forage testing and ration adjustments critical this year

Michigan potato growers got their first chance to compare Lenco's new eight-row rowdrower against its competitor at the 1996 Spudtacular held at V & G Farms in McBride. The multi-use potato machine not only harvests twice as many rows at a time, but has attachable implements to plant and cultivate using the same wheel tracks.
Meat inspection announcement

President Clinton has announced changes to the federal meat and poultry inspection system designed to implement some much-needed food safety and inspection technologies that would replace current sight, smell and touch inspections.

The long-awaited hazard analysis and critical control points (HACCP) regulations would require packers to identify critical control points and act to reduce bacterial contamination. Government inspectors would monitor the process to ensure new standards are met to reduce bacterial contamination. Inspection of the packing point would be eliminated.

Cost estimates from the Agriculture Department show the plan could cost up to $90 million in the first year for the four phases to implement — about one-tenth of a cent per pound of raw meat sold — and will result in health pay by up to $7.7 billion per year in reduced medical costs from treatment of food-borne illness. The government estimates more than 800,000 die each year from consumption of meat and poultry products.

Meetings will help calf and stocker producers evaluate their future

The prospects for profits in the near future for cow/calf and stocker producers will be discussed during a series of four meetings to be held in September in southern lower Michigan.

Meeting registration is $15 per person (check made payable to Michigan State University). The registration deadline is Sept. 10. Each meeting will run from 6:30 to 9 p.m.

• Sept. 16: Van Buren County MSU Extension, 801 Harris St., Paw Paw. Mail check to or contact Maury Kaarreter, MSU Extension, 201 W. Kalama-zoo Ave., Bozeman 50, 69047-5777; (269) 675-9895.

• Sept. 17: GIBET Steak House, 2353 Shirley Drive, Jackson. Mail check to or contact Lisa Townsend, MSU Extension, 1045 S. Water St., Suite 200, Adrian, 49221; (517) 540-2556.

• Sept. 18: Isabella County Farm Credit Services in the USDA Building, 623 S. Washington St., Isabella; Mail check to or contact Kevin Gauld, MSU Extension, 100 Library M. I., Ionia, 48846-1091; (616) 253-9777.

• Sept. 19: Brown Bungalow Restaurant, 20430 Northland Dr. (Old-US-131), Paris. Mail check to or contact Joel Conard, MSU Extension, 1875, New Art., Fremont, 49419; (517) 942-9045.

Michigan fruit crops short

Heavy rain conditions and a late frost were the primary culprits in drastic declines from the hazardous 1995 fruit production crop. The Federal State Market Information System (FASMS) forecasts the apple crop at 85 million pounds, nearly a third below last year’s output. The reductions are particularly high in processing varieties. Development is a week behind normal. Color- ing has begun. The August 1 grape production forecast was 62,000 tons, down 12 percent from 1995.

Coloring of tomatoes has begun. The United States Department of Agriculture (USDA) placed potential plant production at 5,900 tons, down from 6,000 tons last year. A decrease in yield will probably result in some tomatoes being canned in nearby states. Michigan peach poulsongrounded from the July 1 forecast to 45 million pounds, still 25 percent less than a year ago. The quality of the peaches, for growers who have them, is very good. Picking of Red Haven, the major fresh market variety, will begin soon. A 15 percent yield loss is expected. Field workers used a "pick and pack" system where 600,000 pounds per day are sorted.

Food prices expected to rise

It will cost consumers at the supermarket this year. An average household with $50,000 in disposable income currently spends about $109 per week on food, according to the Agriculture Department.

Average prices for beef and pork and poultry products, which accounts for 50 percent of food spending, will increase about 15 percent. Higher feed costs will also hurt the bottom line for farmers.

Next year’s crop will be a big factor in fast price increases. Any problem with next year’s crops and prices could move up dramatically, said Rabatz.

He added that the Agriculture Department’s corn crop projection of 8.6 billion bushels would mean that corn and feedstock prices will persist well into 1997.

Kansas cattle co-op forming U.S. premium beef brand

Kansas cattle ranchers are organizing a cooperative under the name of U.S. Premium Beef to compete with the nation’s largest beef packing companies. The beef market has been oligopolistic for decades, with companies setting prices for the nation’s beef.

The co-op would allow its members to share in the profits of the packing industry as well as provide a market for producers that are at the mercy of the market. A similar venture is being planned by farmers in Iowa, Nebraska, Minnesota and the Dakotas, where the producers would open a packing plant in conjunction with the Northern Plains Premium Beef co-op, which has 2,800 members in seven states and two Canadian provinces.

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Capitol Corner

NATIONAL ISSUE

Health Care

On Aug. 2, Congress passed the Health Insurance Portability and Accountability Act. The CQ Weekly Report passed the House 412-2 and the Senate 98-0. The bill is awaiting the President's signature.

The bill includes the following:

- Increases the self-employed health insurance deduction to 80 percent according to the following schedule:
  - 1997: 40 percent
  - 1998: 45 percent
  - 1999: 50 percent
  - 2000 and after: 80 percent
- Ensures that the bill includes provisions for long-term care.
- Provides insurance companies with new legal rights to deny claims for health conditions and from dropping persons when they become ill.
- Authorizes individuals to withdraw money from 401(k) plans and Individual Retirement Accounts (IRAs) without incurring the 10 percent penalty to pay for long-term care insurance.
- Allows chronically and terminally ill to cash out their life insurance policies without tax penalties.
- Allows small businesses with 50 or fewer workers and the self-employed to have Medicare-eligible (Med-Miss) plans. At the end of four years, people with Med-Miss in place will be able to keep them. Congress would ensure the Med-Miss coverage to the rest of the population.
- The total number of Med-Miss plans would be limited to 750,000 which is expected to cover over 2 million people.

- Prevents insurance companies from denying coverage to individuals with pre-existing health conditions and from dropping persons when they become ill.
- Allows portability to allow persons to maintain health insurance coverage when they change jobs.

MB Contact: Al Almy, Ext. 2040.

NATIONAL ISSUE

Minimum Wage

On August 2, Congress passed the Small Business Job Protection Act of 1996. The Committee Report passed the House 534-72 and the Senate 76-22. The bill was signed by the President.

The bill includes the following:

- The minimum wage will increase from $4.25 to $5.15 in October 1996 and to $5.15 from May 5, 1997.
- Provides a $100 Unrelated Business Income Tax (UBIT) safe harbor for Farm Bureau associate members with less than $100 threshold indexed for inflation. The effective date is Dec. 31, 1996.
- Increases annual exempt limits for small business from $17,900 to $20,000 annually according to the following schedule:
  - 1997: $18,000
  - 1998: $19,000
  - 1999: $20,000
  - 2000 and after: $20,000
- Allows non-employees to contribute to a pre-tax Individual Retirement Account (IRA).
- Makes the Aggie Banker (a shared services concept) a reality for farmers. Beginning farmers are able to purchase land from relatives.
- Makes non-profit organizations to offer 401(k) plans.
- Delays for six months, until July 1, 1997, a requirement for small businesses to file payroll taxes electronically.
- Repeals the advance refund of the self-employed tax deduction.

MB Contact: Al Almy, Ext. 2460.

STATE ISSUE

The Wildlife Act (ballot proposal)

Sponsored by Sen. Mary Ann Donahue (R-Lake Orion) has been signed by the Governor and assigned P.A. 377 of 1996. The official ballot designation will be made by the Board of Canvassers in August and the following contains the following:

- Sound scientific management of wildlife populations of the state, including hunting, is declared to be in the public interest.
- The sound scientific management of bear populations in this state is necessary to minimize human/bear encounters and to ensure bears from threatening or harming humans, livestock and pets.
- The Commission of the Department of Natural Resources shall have the exclusive authority to regulate the taking of game in this state. The Commission shall, to the greatest extent practicable, utilize the methods of sound scientific management in making decisions regarding the taking of game. Issuance of orders by the Commission regarding the taking of game shall be made following a public hearing and opportunity for public input.
- This amending act shall not effect unless submitted to the qualified electors of the state at the general election to be held Nov. 5, 1996.

MB Position: MB encourages a “yes” vote on this ballot proposal on Nov. 5.

MB Contact: Scott Director, ext. 2045

1996 Spudtacular highlighted by new technology

Three potatoes, the potatos, the potatoes
Continued from front page

WISCONSIN TAKES ACTION ON MILK PRICING CONTEST

The Wisconsin Board of Agriculture, Trade and Consumer Protection has ruled dairy plants can no longer pay larger dairy producers more for their milk to lure them away from competitive dairies. The board approved the measure by a vote of 5-3, with supporters praising it as far as smaller dairy producers. Rod Burdett, the director of agriculture, said it was a move that would eventually “come back and bite you.” The new Wisconsin rule would close a loophole that allowed dairies to pay different prices to different producers for their milk selling process. Maximum milk prices averaged $13.44 per hundred weight in April, June and September of 1996, but is expected to reach as high as $16 per cwt this summer because of hot weather, high grain and feed costs and feed-downs.

USDA announces date of referendum

Continued from front page

USDA specifically addressed the single entity rule, which states each legal entity is entitled to a vote — much the same as in the beef and pork referendums. However, USDA reported that the county offices enforced varying interpretations of this rule. The report indicated this was one of the most prevalent problems in the referendum.

According to Toni Borbaugh, President of the Michigan Sheep Breeder's Association and a Menomonee County sheep producer, Michigan producers approved the original referendum. He hopes that Michigan producers will repeat their approval of the referendum. "The main message is that if we vote yes on this checkoff we will have a national checkoff, which we need to compete," Borbaugh comments.

Continued from front page

The 1996 Spudtacular at V & G Farms in McBride demonstrated to potato producers and buyers the latest washing equipment and loading equipment for the field and from storage. The Onaway potatoes harvested at the event were delivered directly to the Campbell Soup Company for processing.

Continued from front page

The potatoes, "explained the new owner of the potato implement, a clear signal for Anderson Brothers Farm in Blanchard. "All the drive wheels are behind the actual harvesting of the potatoes."

"In the rows you aren't drilling in there's no compaction, and with that you get better yield," Anderson adds. "You can't believe the difference — you can take your flat and push it right into the ground in the rows where you haven't trenched. Now that's no compaction."

"The Michigan farmer is becoming well-known across the nation for being on the cutting edge and aggressively accepting new ideas," noted Randy Jewell, who bought Lecon from Johnson in 1995. "They have demanded our company to be highly innovative. Other states have grown to respect the Michigan potato farmer for that.

"The Lecon-built winnower is an amazing machine giving growers a comparison on today's technology," exclaimed Kudwa. "They're really trying to get more speed out of this. With potato harvest being in mid-August and going non-stop to the end of October it's hard to make up a week if you have bad weather. This harvester helps them do that."

Building from scratch

The first machine of its kind for Lecon took 5,000 man-hours to build, beginning in early March, according to Johnson.

"We've been thinking about building it for a couple of years," stated Anderson. "We're looking for ways to upgrade or changing the design of the Lecon. Finished with this... we sold our four-wheel drive tractor we used to pull the harvester, because we didn't need it anymore."

"We approached them to build the machine," explained Anderson. "They're the only ones that could do it and it had to be proven that this could be done."

"We can't build a thing without a farmer buying it," explained Jewell. "Every machine we build is built for the individual. We always tell them, 'It's build it if the way you want it.'"

"Working with Lecon we would use a computer-aided design program that we could actually see how it was going to work before actually building it," confirmed Anderson. "That gave us a chance to say 'oh that's not going to work' and make some adjustments."

A tale of American ingenuity, Johnson founded the company in 1973 as a tool and the manufacturer doing business as Lecon. Minnesota. His company was appreciated by Minnesota farmers, people and the Minnesota Aggie Banker (a shared services concept) a reality for farmers. Beginning farmers are able to purchase land from relatives.

MB Contact: Al Almy, Ext. 2040.

MB Contact: Scott Director, ext. 2045
Survival techniques for feedlots

By Steven Rust and Roy Black

Record high corn prices, coupled with the largest per capita supply of beef since 1966, have created uncertainties about the future profitability of cattle feeding. Low fed cattle and high corn prices have affected all segments of the cattle industry reducing feeder cattle, dairy calf and feed cop rates.

The focus of this article is "What can be done to reduce the risk of unprofitability?" We look at the long term as well as providing some comments on the longer term. From a short-term perspective, discussion will be focused on three topics: marketing, marketing, and range.

Marketing

Don't overstock the cattle in your feedyard. The longer cattle are on feed, the worse feed conversion efficiency increases, cumulative feed conversion efficiency increases. The amount of feed required to take cattle from 1,100 to 1,200 lb. and 1,200 to 1,300 lb. was 9.83 percent, 10.13 percent and 11.36 percent, respectively. The table clearly indicates that selling cattle as soon as they will go for market offers that will make profit. Calculate your break-even points so you know what sets of cattle are a good buy. Some example break even are shown in Table 2. These are current conditions creating loopholes appear to offer the most profit potential.

<table>
<thead>
<tr>
<th>Table 2 — Break-even sale price for various classes of cattle</th>
<th>Feed/gain Grade</th>
<th>Percentage Gain</th>
<th>ADG</th>
<th>DMI</th>
<th>Sale Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3.50/ bu.</td>
<td>0.86-1.57</td>
<td>0.27-0.48</td>
<td>1.27-2.29</td>
<td></td>
<td></td>
</tr>
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<td>$4.00/ bu.</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

**Focus on management strategies that increase feed efficiencies.** The table demonstrates that feeding management and animal performance are the two most important areas. Sell "poor doers" and chronic feeders when opportunities arise. Strategies for "topping" pens are important. Send the cheaters (poor doers, etc.) as soon as they reach Select quality grade.

There is a big incentive to use high corn prices to keep pens "topped off." Producing cattle that possess a higher percentage of Choice or Select grade meat than the minimum market specifications can be costly (Table 1). Efficiency of conversion decreases with time on feed even though the percent of Choice increases. If you are bid for the extra grade, a higher percentage of Choice will not be cost effective.

**Nutrition**

Make sure you have an ionophore in your diet to make efficient use of the corn. Ionophores increase the feed efficiency by 5-10 percent. With $3.80 corn, that's $17-34 per steer. Formulate your diets to contain 11-12 percent Choice (Table 1). Efficiency of conversion decreases with time on feed even though the percent of Choice increases. If you are bid for the extra grade, higher percentage of Choice will not be cost effective.

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Potato late-blight a cause for concern

Because of our record-setting wet spring, it is possible to see a wide range of potato late-blight disease occurring this year, warns Keith Cregg, deputy director of the Michigan Potato Industry Commission in its efforts with Michigan State University in preventing a major outbreak of this disease, Cregg said.

"MDA will continue to monitor the potato late-blight situation here in Michigan and support the Michigan Potato Industry Commission in its efforts with Michigan State University in preventing a major outbreak of this disease," Cregg said. Dr. William Kirk, an associate professor at Michigan State University (MSU), repo

\[ \text{continued from front page} \]

Forage evaluation and ration adjustments critical this year

\[ \text{Continued from front page} \]

\[ \text{Among users producers to avoid the temptation of jumping on the magic inonneum corn silage that may get frosted. The most important thing to note is that proper planning is important to ensure that the corn is properly stored and handled. Correct planning and execution are essential to ensure that the corn is properly stored and handled.} \]

\[ \text{Rugged Enough To Work On Your Farm. LESTER Knowns every farmers wants buildings that look good, provide long term reliability, and are affordable. Un-Frame® agricultural buildings from Lester meet the highest standards for appearance, durability and value. Every structure, custom designed or standard, is pre-engineered from the ground up to meet the exact needs of your operation backed by the industry’s leading warranty.} \]

\[ \text{Lester Builder or call 1-800-826-4439.} \]
**Market Outlook**

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

The Aug. 1 USDA Crop Production Report, released Aug. 12, confirmed what we already knew — Michigan will have a poor corn crop. But we now have an idea of how poor. Michigan's estimated yield was 99 bushels per acre, down from last year's 115 bushels, which was about normal.

The U.S. National Agricultural Statistics Service has reported Michigan's corn yield to be 83 bushels per acre, compared to the national average of 115 bushels, which was about normal. The yield estimate for Michigan is based on a sample survey of approximately 1,000 cooperating farms. The survey is conducted twice a year, in June and December, to estimate the corn yield per acre.

The USDA report also indicates that the average yield for the U.S. is 118.3 bushels per acre, compared to a record yield of 126.2 bushels in 1995. This year's yield is significantly lower, with a 10% decrease from last year, due to the poor growing conditions and dry weather across the Corn Belt. However, the yield is still above the national average, which is 115 bushels per acre.

**Corn**

The USDA report confirmed that Michigan's corn crop is expected to be 200 million bushels, down from last year's 300 million bushels. This is the lowest corn production in Michigan since 1991, due to the poor growing conditions and dry weather during the growing season.

**SOYBEANS**

Michigan's soybean crop is estimated to be 50 million bushels, down from last year's 75 million bushels. This is the lowest soybean production in Michigan since 1991, due to the poor growing conditions and dry weather during the growing season.

**WHEAT**

Michigan's wheat crop is estimated to be 15 million bushels, down from last year's 25 million bushels. This is the lowest wheat production in Michigan since 1991, due to the poor growing conditions and dry weather during the growing season.

**HOGS**

Michigan's hog production is expected to be 3.5 million, down from last year's 4.0 million. This is the lowest hog production in Michigan since 1991, due to the poor growing conditions and dry weather during the growing season.

**Commodity Outlook**

**Simple Seasonal Price Trends**

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Corn</th>
<th>Soybeans</th>
<th>Wheat</th>
<th>Hogs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price (cents per pound)</td>
<td>5.40</td>
<td>6.80</td>
<td>5.60</td>
<td>4.30</td>
</tr>
</tbody>
</table>

**Crop Production Trends**

<table>
<thead>
<tr>
<th>Season</th>
<th>Corn Production</th>
<th>Soybean Production</th>
<th>Wheat Production</th>
<th>Hogs Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995-96</td>
<td>24.6 million</td>
<td>5.7 million</td>
<td>2.0 million</td>
<td>3.5 million</td>
</tr>
<tr>
<td>1996-97</td>
<td>22.4 million</td>
<td>5.4 million</td>
<td>1.9 million</td>
<td>3.3 million</td>
</tr>
<tr>
<td>1997-98</td>
<td>20.2 million</td>
<td>4.9 million</td>
<td>1.8 million</td>
<td>3.1 million</td>
</tr>
</tbody>
</table>

**Commodity Supply/Demand Balance Sheets**

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Acres Planted</th>
<th>Acres Harvested</th>
<th>bushels/acre</th>
<th>Total bushels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>9.6 million</td>
<td>8.5 million</td>
<td>100</td>
<td>858 million</td>
</tr>
<tr>
<td>Soybeans</td>
<td>2.3 million</td>
<td>2.0 million</td>
<td>40</td>
<td>79.6 million</td>
</tr>
<tr>
<td>Wheat</td>
<td>1.9 million</td>
<td>1.6 million</td>
<td>180</td>
<td>288 million</td>
</tr>
</tbody>
</table>

**Commodity Price Trends**

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Season</th>
<th>Price (cents per pound)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>Dec '96</td>
<td>5.40</td>
</tr>
<tr>
<td>Soybeans</td>
<td>Nov '96</td>
<td>6.80</td>
</tr>
<tr>
<td>Wheat</td>
<td>Sept '96</td>
<td>5.60</td>
</tr>
</tbody>
</table>

**Cattle Outlook**

The cattle market is expected to stay strong in the fall, with prices projected to reach $550 per hundredweight. This is due to the strong demand for beef, along with the expected decline in the number of cattle entering the slaughter market. The cattle market is also expected to strengthen in the second half of the year, with prices projected to reach $525 per hundredweight. This is due to the expected increase in demand for beef, along with the expected decline in the number of cattle entering the slaughter market.

**Farm Numbers Decrease Slightly**

The estimated number of farms in Michigan is 18,000, down 10% from 1995. This is due to the continued consolidation of the agricultural sector. The average farm size is also expected to increase from 170 acres in 1995 to 190 acres in 1996.

**Commodity CRA Programs**

The U.S. government has implemented the Commodity Credit Corporation (CCC) programs to provide support to farmers and commodities. The programs provide loans, price support, and other forms of assistance to farmers and processors. The programs are funded through the Commodity Stabilization Service (CSS) and the Commodity Credit Corporation (CCC).

**Market Trends**

The current market trend is positive, with prices projected to reach $550 per hundredweight. This is due to the strong demand for beef, along with the expected decline in the number of cattle entering the slaughter market. The cattle market is also expected to strengthen in the second half of the year, with prices projected to reach $525 per hundredweight.
Cash crop farm returns

800 tillable acres (Table 4). The small farms averaged 307 tillable acres, medium farms averaged 554 acres and the large farms averaged 1,702 acres. Capital investment per acre was about the same for the small and medium size categories. Number of hours of labor per acre was about 6.2 hours on medium farms and 9.4 hours on large farms. Small farm operators owned a larger percent of the land and larger farm operators rent a larger percent of the tillable land.

Small farm operators had a net farm income of $107 per acre. When charges are placed on family labor and equity capital, the management income decreases to $57 per acre and the 9.4 percent residual items need to be adjusted for the acres cropped. The return to owned capital was 12.9 percent in 1995, which was up from 7.3 percent in 1993 and 9.5 percent in 1994. The total value of production per acre was $455 in 1995 and $358 in 1994 and $201 in 1993. Crop yields in 1995 were about the same as 1994, with the increases in value coming from increases in prices and crop quality due to good weather conditions. Total production cost per acre was $259, which was lower than 1994. Value of crop supplies increased, but other costs decreased.

Returns on Saginaw Valley cash crop farms were higher in 1995 than in previous years (Table 2). The return on owned capital was 6.3 percent in 1995, which was up from 5.7 percent in 1994, but lower than the 7.5 percent return in 1993. Village farm operators had a $85 net farm income per acre which was lower than 1994. Value of crop supplies increased, but other costs decreased. Returns on Saginaw Valley cash grain farms were higher in 1995 than in previous years (Table 3). The return on owned capital was 9.6 percent in 1995, which was up from 5.7 percent in 1994, but lower than the 9.5 percent return in 1993. Value of crop supplies increased, but other costs decreased. Returns on Saginaw Valley cash crop farms were higher in 1995 than in previous years (Table 3). The return on owned capital was 9.6 percent in 1995, which was up from 5.7 percent in 1994, but lower than the 9.5 percent return in 1993. Value of crop supplies increased, but other costs decreased.

Resource Use

The value of farm capital owned on cash grain farms was higher in 1995, with a higher value placed on land per acre and crop inventory. The estimated value of labor per acre was $38 in 1995. The value of farm capital on Saginaw Valley crop farms increased, with the estimated number of hours of labor per acre at 6 in 1995. The sample of farms selected for the report shows cash grain farms with 789 tillable acres, 767 percent of the land rented. The farms with soybeans in the rotation had 1,196 tillable acres and 54 percent of the land rented.

Level of Profitability

Table 3 presents a quick way to calculate the return to owned capital. The 43 cash crop farms were divided into three size groups by number of acres with small farms less than 300 tillable acres, medium farms between 300 and 800 tillable acres and large farms greater than 800 tillable acres. The small farms averaged 307 tillable acres, medium farms averaged 554 acres and the large farms averaged 1,702 acres. Capital investment per acre was about the same for the small and medium size categories. Number of hours of labor per acre was about 6.2 hours on medium farms and 9.4 hours on large farms. Small farm operators owned a larger percent of the land and larger farm operators rent a larger percent of the tillable land.

Small farm operators had a net farm income of $107 per acre. When charges are placed on family labor and equity capital, the management income decreases to $57 per acre and the 9.4 percent residual items need to be adjusted for the acres cropped. The return to owned capital was 12.9 percent in 1995, which was up from 7.3 percent in 1993 and 9.5 percent in 1994. The total value of production per acre was $455 in 1995 and $358 in 1994 and $201 in 1993. Crop yields in 1995 were about the same as 1994, with the increases in value coming from increases in prices and crop quality due to good weather conditions. Total production cost per acre was $259, which was lower than 1994. Value of crop supplies increased, but other costs decreased. Returns on Saginaw Valley cash crop farms were higher in 1995 than in previous years (Table 2). The return on owned capital was 6.3 percent in 1995, which was up from 5.7 percent in 1994, but lower than the 7.5 percent return in 1993. Village farm operators had a $85 net farm income per acre which was lower than 1994. Value of crop supplies increased, but other costs decreased. Returns on Saginaw Valley cash crop farms were higher in 1995 than in previous years (Table 2). The return on owned capital was 6.3 percent in 1995, which was up from 5.7 percent in 1994, but lower than the 7.5 percent return in 1993. Village farm operators had a $85 net farm income per acre which was lower than 1994. Value of crop supplies increased, but other costs decreased.
Weather Outlook

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

During early August, the 1996 growing season continued to be one of climatological extremes. Temperatures finally warmed to 90°F during the first week of the month, only to cool back to normal or below normal levels by the middle of the month. Growing Degree Day accumulations for the season still lag significantly behind normal, although deficits are somewhat less than one month ago due to the recent warmer weather.

Lack of rainfall has been an increasing problem to some areas of the state. Some sections of the southern and central Lower Peninsula have received less than 1 inch of precipitation since late June, stressing most field crops, and likely leading to reductions in yield potential.

New National Weather Service long-lead outlooks for Michigan call for greater than normal odds of below normal temperatures for both the 30-day (September) and 90-day (September-November) periods. Odds for precipitation are considered to be equal among below-, near-, and above-normal scenarios for September, but are greater than normal for the above-normal scenario for the September-November period.

Given the outlook for cool temperatures and the importance of late season weather this year, there are two important factors to remember: 1) the skill of long-lead outlooks during the fall (and spring) seasons is relatively low (not much better than even odds), and 2) there is still no reliable way to forecast when the first freeze of the fall will occur more than several days ahead, even given a cooler than normal outlook.

The best bet is still to monitor your short- and medium-range (5-10 day) outlooks for signs of a likely outbreak of cold air, accompanied by clear, calm nighttime conditions.

Fact of the day

Since 1992, nearly 55 percent of all bacon was consumed by fast-food outlets and restaurants, while the supermarket business used 45 percent, according to USDA’s Hog and Pig Report. McDonald’s expects to use 18 million pounds of bacon a year just for its new Arch Deluxe burger. Burger King, during the past six months, has purchased 2.7 million pounds of bacon for its sandwiches.

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Where Belonging Makes a Difference.
Michigan's apple producers know bobbing for a place in the international market isn't "easy as pie"

By Mary J. Gawwenda

But it's a task made easier this July when representatives from the U.S. Department of Agriculture and several apple-producing states met with Brazil officials to discuss trade regulations.

The largest foreign consumers of Michigan apples are Brazilians, whose nation is reaping dividends from several years of political and economic dearth. As their economy grows, so does their desire to import food and other products, said Mark Arney, Michigan Apple Committee.

As free trade and global development become more common place, the nation's No. 2 apple-producing state is peeling off the stereotype that Michigan apples are only consumed in Michigan. Only a fraction of the state's apple harvest is consumed by Michiganders; the rest is sold across the nation and across the ocean, explains Mark Arney.

"We realized that for us to be viable in years to come, and because there's only so many apples we can sell domestically, that exports are the way to go," Arney said.

As the member organization for Michigan apple producers, the apple committee promotes apples for export to South and Central American countries, such as Brazil. These nations are prime export sites because the natural fruit imports and their growing season is the opposite of Michigan's, Arney explains.

"We harvest in October; they harvest in the winter — which is their summer," he said.

But Brazilians are tightening their phytosanitary regulations on fruit imports, demanding states with Apple Maggot, such as Michigan, meet governmental requirements to kill the maggots.

Under the trade agreement worked out in July, U.S. and Brazilian officials agreed apples must go through a systems approach to guarantee no apple maggots reach Brazil, said Gary King of the Michigan Department of Agriculture.

To the benefit of apple exporters, the approved regulations are in line with the pre-harvest interval growers have been taking for years, King said.

The Michigan Department of Agriculture (MDA) and the United States Department of Agriculture (USDA) are working to educate apple growers about U.S. phytosanitary regulations. Growers planning exports to Brazil must be registered with the MDA and follow USDA rules to qualify for certification.

Brazilian play an important factor in improving the nation's apple production, Arney said. "Imports to Brazil last year saw the overall prices of apples raised about $1 per bushel."

For further information, producers can call Gary King at (517) 373-9747.
by Patrick Hart, Botany and Plant Pathology, and Larry Copeland, Crop and Soil Sciences, Michigan State University

Wheat, caused by the pathogen plant pathogen Fusarium graminearum (Fusarium graminearum), was a severe problem in many Midwest states in 1996, including Michigan. The mycotoxin associated with wheat, DON (DON immunodetectable), is produced as a by-product of the growth of fungi during its season of the year. The Federal Drug Administration (FDA) has issued guidelines concerning the safety of DON in food and feeds. Wheat was affected by these environmental events in 1995-96 in the fall, winter, and spring. Wheat follow-up发现了 by severely cold weather, and heavy rains in mid-June. It is unlikely that these all three events would be repeated in 1997. Wheat is an important crop to Michigan agriculture, including farmers, elevators, millers and processors, and although 1996 was not a good year for wheat, we should not abandon the idea that wheat can be grown profitably in Michigan. 

In other years, the wheat maturing this year, can I plant wheat after wheat safely?

Yes, but some precautions are necessary:
- Certified seed, or other professionally produced and conditioned seed to commercial seed supplies should be the first choice for planting.

Steam-flaked corn is worth $1.36 per bu or 1.23 ton of corn. Another fact to consider is the cost of rolling corn. Most industry estimates assume a charge of $2.00 per bu corn to roll corn. A comparison of what you can afford to pay to process corn is shown in Table 6. In this analysis, whole-shelled corn was used as the standard in comparison to other processing methods. To justify rolling corn, it would need to be done for a portion of the silo that would reduce the amount of face exposure and eliminate spoilage.

The profitablility of feeding cattle in northern Illinois (DeKalb, 1996) has been highly volatile but, in average, it has been profitable (Figure 1). This region, which is representative of the Michigan industry, has experienced a pattern of large profits followed by periods of loss. If this historical trend continues, profits should be realistic during portions of the next two years. Additionally, there is strong evidence that feedlots in Michigan can continue to be very profitable.

GHG granted exclusive rights to Ramrod

Michigan State University Seed Extension Specialist Larry Copeland said, "Releasing Ramrod to GHG places the new MSU wheat line in a position to be effectively marketed in the growing soft white wheat varieties. GHG has the production, processing and marketing expertise to effectively distribute Ramrod to Michigan growers."

Two of the GHG partners, Genesis Ag Ltd. and Harrington Seeds Inc., are also partners of the North American Seed Company, exclusive Canadian Licensee to produce, and sell Ramrod in Canada, including export rights to Canada. This creates an additional market for Michigan-produced Ramrod, once Ramrod is approved for sale as a certified variety in Canada, Copeland added.

For further information, please contact Bill Harmon, Genesis Ag Ltd. (517) 887-1846 or Larry Copeland, seed Extension specialist, Michigan State University at (517) 353-9549.
Interpreting the 1996 MSU state wheat variety trial results

by Rick Ward, Samuel Hazen, and Erica Jenkins, Department of Plant and Soil Sciences, Michigan State University

Wheat variety performance trials are conducted by Michigan State University (MSU) each year at several locations throughout Michigan's wheat production area. Entries to the trials include MSU experimental lines, promising lines from neighboring states, and commercial lines from other universities and private seed companies. The primary objective of this testing program is to provide the agronomic data needed to determine which lines to release as commercially viable varieties. A secondary objective is to show Michigan wheat growers which varieties perform best in Michigan. This year's results are summarized in the accompanying tables.

Although wheat producers are always interested in seeing how varieties perform in a given year and location, performance in single year and location can not be used to reliably select a variety for the next growing season. It is best to select a variety on the basis of data from at least three years of testing. Varieties selected with such comparisons are more likely to perform well under a wide range of conditions.

Multi-Year Performance Summary

Each line in the table has data for a single variety, with entries included in the table if the variety had its highest year’s average yield. The table is arranged so that the variety appears in order of its average yield with the highest yielding variety first and the lowest yielding variety last. To the left of the ‘96 data are yield averages for individual years (95-99). Not all varieties have been tested in all years; the table has several blank cells. To the right of the ‘96 yield column are multi-year average yields. Only data for lines that were included in the relevant year’s entries are included. See the line 'Interpreting detailed' for how the trial data were conducted and more information on what the data in each column represent.

At the bottom of table is information on how many varieties were entered in the trial and the number of entries for each variety is indicated by a column. Means, I.S.D.s, and C.V.s are provided for those data columns. The I.S.D. (least significant difference) is the statistical measure of how big a difference needs to be to be considered real. The C.V. (coefficient of variation) is indicative of how precise a trial is. Lower C.V. values indicate more precise trials.

In any given year or at any given site, several varieties will usually fall into the group of highest yielding varieties and this group of top performers may change from year to year, and the identity of the absolute ‘winner’ can’t be known and does change from location to location and year to year. That is why selecting a single best variety cannot be determined in advance for a specific site. What you can do is identify a group of varieties whose growth habit is good and whose economic characteristics indicate that they are most likely to be winners in the upcoming season. It is a good idea to plant two or more varieties. That increases the chance of having the best adapted variety for the particular conditions that are likely to prevail during the ensuing season. Selecting two varieties can reduce losses from diseases and insects that occur when a given variety’s pest resistance is overcome by a change in the pest population.

Experimental

The 1996 State Wheat Variety Trial was harvested at six county sites: Lenawee, Ionia, Saginaw, Barry, Sanilac, and Ingham. Plots were 11.2 feet long and had 7 rows at 17-inch row spacing. Individual sites were implemented as three replication alpha lattice (16 blocks of 5 plots each). Seeding rates were standardized to 1.8 million seeds per acre. Planting dates were within the normal range. Fall fertility varied with cover cropping practice. Spring nitrogen was applied at 60 (Bacillus) at green-up. Winter rainfall was recorded at each site areas and the plots were harvested on a single day. Data for all commercial wheat entries entered into the trial are reported here. Data from the entries that were not included in the table are available from the authors. Means at the bottom of each column are for the listed entries only. Yield was calculated using the entire area of the plot including the wheel tracks between plots. Test weights are estimated using 1

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Yield was calculated using the entire area of the plot including the wheel tracks between plots. Test weights are estimated using 1 pint samples for each harvested plot. Yield comparison tables within a column. Abbreviations are: SEPT = septoria leaf blotch, PM = powdery mildew, WSMV = wheat streak mosaic virus, Ht+ = plant height. All scores are based on a 0-9 scale, where 0 is the best possible score.
Eastern equine encephalomyelitis testing in Michigan

This summer, the Michigan Department of Agriculture, Michigan State University, and three other agricultural universities in Michigan (Michigan State University, Michigan Agricultural Experiment Station, and Michigan State University) will be continuing their efforts to detect Eastern Equine Encephalomyelitis (EEE). EEE is a viral disease that can be transmitted by mosquitoes, which can cause severe illness and death. The disease is known to be transmitted to humans and other animals through the bite of an infected mosquito.

To detect the presence of EEE, the Michigan Department of Agriculture is using a surveillance program that involves collecting blood samples from horses and chickens in various parts of the state. This program is designed to detect the early stages of the disease, which can help prevent the spread of the virus.

The program involves collecting blood samples from horses and chickens in various parts of the state. The samples are then tested for the presence of the virus, which can cause severe illness and death. The program is designed to detect the early stages of the disease, which can help prevent the spread of the virus.

The Michigan Department of Agriculture is working with other state agencies, such as the Michigan Department of Community Health, to ensure the success of the program. The agency is also working with local health departments to ensure that people are aware of the dangers of EEE and how to prevent its spread.

Are American farmers losing edge in world market?

Mexican farmers have long been considered to be the most efficient in the world. However, in recent years, there has been a shift in the global market, and Mexican farmers have faced increasing competition from other countries.

Mexican farmers have been facing increasing competition from other countries, which have been able to produce goods at lower costs due to cheaper labor and less stringent environmental regulations. As a result, Mexican farmers have been forced to compete with goods produced by other countries, which has put pressure on their profits and overall sustainability.

American farmers have been working to improve their competitiveness by implementing sustainable farming practices and improving their supply chains. The U.S. Department of Agriculture has been working to support American farmers by providing them with resources and funding for sustainable practices.

Groups efforts led the pioneer organizers to select five programs they thought were the most important issues for farmers, neighbors, and other one-dependent on Michigan farming.

Water quality stewardship, intensive rotational grazing, marketing, consumer protection, and urban agriculture have been the top five pilot projects of MIFFS. With the success and feedback from these programs, seven more community-based plans have been funded and participants are looking for more programs to fund and support.

Using traditional and non-traditional methods to bring a community together has been the key to MIFFS's success, many participants say.

"We share the belief that agriculture can be all the best and the assured (environmental) sacrifices of operating a farm aren't true," Moynihan said.

"If you are trying to do everything the same way, then you are doing nothing, but that's not always the best way," Teresa Miller, Michigan Grazing Networks coordinator.

The EEE Act requires that all stores cannot label products made with EEE until a trial is conducted to determine whether such labeling is legal. The American Farm Bureau Federation believes labels should not be required to contain information on production practices that do not affect nutrition or safety of the product. Also, agricultural products that are produced using approved biotechnology should not be required to designate individual inputs or specific technologies on the product label.

Dairies win labeling decision in appeals court

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Michigan crop outlook down

Michigan's 1996 crop outlook continues below normal, based on Aug. 1 conditions. For most major field crops, little rainfall and cool temperatures in July contributed to reduced yield expectations, according to the Federal/State Michigan Agricultural Statistics Service. Michigan crops got off to a late start after planting was delayed by the cool, wet spring and they continue to develop at a slow pace. Some highlights of the report are as follows:

- The Michigan corn yield at 99 bushels per acre was estimated at the lowest level since 1978.
- Soybean production would be the third highest in Michigan history at 55.8 million bushels.
- Wheat production, at 66 bushels per acre, was below the lowest level (67 bushels) in 1990.
- The U.S. corn production forecast of 1.65 billion bushels, up 18 percent from last year.
- The first U.S. soybean production forecast of the 1996 crop is a 2.30 billion bushels, up 7 percent from 1995.

- Other production would be the lowest since estimate began in 1866 in Michigan at 3.4 million bushels.
- Michigan's sugar beet yield at 14 tons per acre was at the lowest level since 1990.
- U.S. corn production is forecast at 8.69 billion bushels.

Some high-weight is 37 percent below 1995.

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The West Milling Company shines bright

By Mary J. Gawender

Bag noted for outstanding service isn't new for the new owner of the West Milling Company, but an award for outstanding dedication to the environment is. The company received the Environmental Stewardship Award from the West Michigan Environmental Council.

As winner of this year's Regional Environmental Stewardship Award, the 125-year-old company has shown its dedication to the people and land of this small town just outside Frankenmuth. "And we've invested in environmental stewardship," said Ken Elliott Nowel, publisher of Star of the West Milling Company.

"We're not trying to do it for government inspectors to come in and tell us what to do," Nowel said. "It's not out of the goodness of our hearts. We have a sense of stewardship, said Ken Elliott Nowel, publisher of Star of the West Milling Company. "We've shown our commitment to protect the environment and the West Michigan Environmental Council.

"It can be done and Star of the West isn't afraid to do it," Nowel said.

Nowel said the company's approach to environmental stewardship is "what makes Star of the West stand out as this year's recipient." Nowel said.

"The company has several types of flour and various grades of cereal bran for leading cereal companies at the two Michigan plants in Frankenmuth and Quincy. The largest plant at Quincy is very committed quality milling for farmers in some of the nation's premier wheat-growing areas," Nowel said. "We have a strong philosophy of helping farmers from local beans. Black, yellow, easy soybeans..."

"We have the ability to process quality wheat and beans and make the only flour of Star of the West has undertaken.ünsisting the product reaches its destination on time isn't a problem with the company's fleet of trucks. Leadership in providing services to farmers before the wheat and beans and other crops are harvested makes the company a part of the grower's work and expansion efforts during the busy fall, He said. That dedication prompted corporate officials to plan for the next 125 years, customers and the land we work with day in and day out is very important to us." We purchased this (Richville location) and started looking to the future because you don't want to be left behind," Nowel said. "Even during the environmental challenges in the new plant, the company has its hands covered.

A sheltered and shaded lead pad with a sloped, epoxy-finished floor and drain catch the rainwater and groundwaters when visitor fills spray trucks, Nowel said.

Before Michigan's second cement tariff law was passed, the company took it upon itself to build a cement "batch" that holds flour ground in stale, outdated and outdated, with the environmental safeguards in the new plant, the company has its hands covered.

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**Michigan Farm News Classifieds**

**01 Farm Machinery**

- **JOHN DEERE 3200** for sale. Lid plate, 2197, 60, soy and bean. $1,750. Contact 1-797-735-8158.
- **MOTOR**. 671 Detroit diesel. $3250 or best offer. Contact 1-517-686-0012.
- **IH 843 CORN HEAD for sale.** Contact 1-517-736-8342.

**02 Farm Machinery**

- **JOHN DEERE 3200** for sale. 516-781-1684. Contact 1-797-735-8158.
- **MOTOR**. 671 Detroit diesel. $3250 or best offer. Contact 1-517-686-0012.
- **IH 843 CORN HEAD for sale.** Contact 1-517-736-8342.

**03 Farm Commodities**

- **BARLEY for sale.** Contact 1-797-735-8158.
- **BAYSIDE ALFALFA SEED:** Darien and Crystal. B & M Seed 1-517-463-2846.
- **MICHIGAN CERTIFIED WHEAT:** Haros, Lowell, Chelan, Waseel, B & M Seed 1-517-463-2846.

**04 Livestock**

- **ANGUS & GELBVICHER Breeding stock-sender.** Free delivery. Border Collie Stock Dogs, Call today.
- **BORDEN FARMS** Sturgis, MI 1-616-651-8353.
- **BEEF**. Bulls, heifers and crosses with performance tested, semen tested, Free delivery. Call anytime.

**05 Stock**

- **DIAMOND FARM** Alton, Michigan. 1-616-694-6960.
- **OWN A PIECE OF HISTORY:** Ten Mile, Lapeer, MI 48446. Call 1-517-867-2179.
- **FARM HELP WANTED:** Full time and farm chores, leave message on answering machine. Call 1-906-763-4501, Stepanich, MI.

**06 Help Wanted**

- **RED BIRD FARMS** 516-651-7379.
- **PUREBRED BOEY GOATS:** 412-619-2049, 516-651-4964 any time.
- **REGISTERED JERSEY breeding age bulls for sale.** Quality, registered breeding stock. Also available embryos and semen.
- **REDHIBD FARMS** 1-610-821-2476.

**07 Agricultural Services**

- **PENDELTON CATTLE Leamington, Ont., Canada.** 1-517-463-2846.
- **FLORIDA HERD MANAGEMENT 4152 Buskcho Rd, 516-651-7379.
- **REGISTERED POLE BEER GOATS.** Also A-1 heifers and feeds. Randy Boothe breeding lines. MSU performance tested. 1-517-867-2179.
- **FARM EQUIPMENT NEW and Used.** Call for more information. 1-610-821-2476.
- **SHEEP, LAMBS, CATTLE, etc.** Contact 1-616-694-6960.

**08 Real Estate**

- **BLUEBERRY FARM.** Muskegon County, 53 acres, (42 producing), two irrigation systems, 2400 square foot processing, packing plant, 1142 square foot three bedroom house. Box 013, Fraser, MI 49411.
- **3 BEDROOM year round cottage on Marlin Lake in Barry township. Michigan. All aluminum exterior extremely clean. Excellent access to 5 other lakes. Excellent fishing! $65,000 with terms. 1-517-946-5280.

**09 Real Estate**

- **UNIQUE OPPORTUNITY.** Homes on lakes, 150’ of sandy beach, 3 decks. Rent, live in large 2 story home, sell lease, or trade for RV. 1-517-733-2782. Call anytime. We would love to offer this real estate to close an estate. Price starts at $255,000. Make offer. May be financed.
- **FOOL TEMPLIN, Broker.** 1-616-467-7382 anytime.

**10 Real Estate Wanted**

- **WANTED:** Farms and land throughout Michigan, agricultural, hunting, recreational, development. Acreage is preferred. We have buyers waiting. Contact 1-517-792-5686.

**11 General**

- **HARDY OUTDOOR CUSTOM PRODUCTS.** Words 1 seller. Stainless and 304 SS construction. Heat one, hot water tank, pots, skillets, oven doors, 1 year warranty! Dealerships available. 1-900-743-5893.
- **JAMBORNE ACRES** 1-517-617-8888.
- **RHEE AIR CONDITIONER AND HEAT PUMP, 4.0 ton.** Call 1-812-735-3910.
- **TRACTORS**: Brazilian 40 hp, Ford 120 hp, John Deere 140 hp, John Deere 120 hp, International 100 hp, farm fresh, low hours, Регау. 1-616-396-9241.
Call 1-800-968-3129 to Place Your
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10. Wanted To Buy
11. Agricultural Services
12. Business Services
13. Business Opportunities
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Place your ad for 1 year, get phone number or name in red and also
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**Circulation over 46,000 In State of Michigan.**
Precision Agriculture

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

Thanks to computers, a farmer can easily carry around a credit card-sized device that holds the equivalent of more than 1,000 pages of information about his crop production system. This ability to digitally collect, store, and then conveniently transport large amounts of data is one of the key technologies associated with precision agriculture.

The computer hardware that helps make this possible is the PC card (formerly called the PCMCIA card after the Personal Computer Memory Card International Association). It’s a device no larger than a credit card that plugs into a personal computer (desktop or portable) and serves as removable data storage. In the system, Terra uses for its Precision Agriculture package, the PC card is the “vehicle” that delivers georeferenced information collected in the field to a personal computer for processing and analysis. The PC card also carries data back into the field to implement the cropping prescription developed by a Terra cropping systems advisor.

There is how that process works. As an “event” (fertilizing, harvesting, grid sampling or scouting, for example) takes place in the field, a Rockwell Vision System “Computer Display in the applicator, combined with tractor-mounted electronics on a PC card such as fertilizer volumes, yields or weed populations. At the same time, a global positioning system (GPS) receiver or satellite signal to pinpoint the event’s location in the field. The location information is digitally married with the collected data on the PC card. The farmer removes the PC card and deliver it to one of Terra’s cropping systems advisors who downloads the data to a personal computer equipped with geographic information system (GIS) software. The software processes data from the PC cards to create detailed maps, graphs or reports that allow the farmer and the cropping systems advisor to see, and analyze the variables affecting crop production in the entire field or just a small portion of the field.

The advisor, working with the farmer, creates site-specific management plans with tailored cropping prescriptions designed to maximize production and precisely manage crop inputs for a field. The advisor loads the prescription from a personal computer onto a PC card. The farmer takes the PC card back into the field and inserts it in a controller unit that drives variable rate planting, fertilizer or chemical equipment. Using prescription data on a PC card, the variable rate equipment applies different amounts of seed, fertilizer or crop protection chemicals at different locations — all with computer controlled precision.

PC card technology makes precision agriculture data transfer — from the field for detailed analysis and back to the field for implementation — relatively simple and convenient. The PC card is a small, locally electronic storage device with no moving parts and about four times the data storage capacity of a diskette. All PC cards measure the same length and width. They easily plug into a slot found on most portable personal computers and on increasing numbers of desktop personal computers. Users also can pull them in and out of their slot while the computer is running without endangering the integrity of data on the PC card.

Some PC cards do more than just store data. Portable computer users can connect to computer networks, fax documents, check e-mail and much more just by inserting a PC card with the appropriate capabilities.

The Personal Computer Memory Card International Association (PCMCIA) sets international standards for PC cards and ensures their interchangeability between computers.

Next month’s column will focus on development of precision agriculture information centers that provide service, training and support to farmers.

\[image\]

Terra Precision Agriculture

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

Phone: (800) 831-1002 & (712) 277-1340 Fax: (712) 277-2783

Precision in Agriculture

The National Agricultural Statistics Service through the Federal State Michigan Agricultural Statistics Service, has released its 1995 Agricultural Chemical Usage Study summary report. The survey was funded by the U.S. Department of Agriculture’s (USDA) Pesticide Data Program (POP).

The purpose of the PDS is to upgrade the reliability of pesticide use statistics and the quality of information on pesticide residues in food. Data collection began in October 1995 and continued throughout December. This data series addresses the increased public interest in the use of agricultural chemicals and provides the means for government agencies to respond effectively to food safety and water quality issues.

There were six fruit crops in Michigan in 1995 that were targeted for data collection. These included apples, blueberries, sweet cherries, tart cherries, grapes and peaches.

The most frequently used herbicide in apple, grape and peach orchards was Paraquat (Gramoxone). Paraquat was applied to 37 percent of the state’s apple acreage, 79 percent of the 11,800 bearing grape acres, and 36 percent of the 5,500 bearing peach acres. Simazine (Princep), at 54 percent of the area applied, was the most often used herbicide on the 16,300 bearing blueberry acres. Glyphosate (Roundup, Rattler) was the most often used herbicide on the state’s cherry acres. It was used on 42 percent of the 7,300 bearing sweet cherry acres and 40 percent of the 30,000 bearing tart cherry acres.

Alachlor-methyl (Grazon) was the most frequently used fungicide in apple, sweet cherry, tart cherry and peach orchards with 95 percent, 87 percent, 79 percent, and 65 percent of their respective acreages receiving treatment. Malathion was the most used insecticide on blueberries with 82 percent of the state’s acreage treated. Metalaxyl-parathon was the most often used insecticide on grapes with 52 percent of the grape acreage receiving applications.

The most widely used fungicide in apple and blueberry orchards was Captan with 89 percent and 73 percent of their respective acreages receiving treatment.

Sulfur was the most often used fungicide on sweet cherries and peaches with 88 percent and 67 percent of their acreage receiving applications. The most widely used fungicide on tart cherry was Chlorothalonil (Bravo) with 82 percent of the state’s acreage treated. Mancozeb was the most often used fungicide on grapes with 92 percent of the acreage treated.

Trade names (in parentheses) are provided as an aid in reviewing pesticide data. NASD does not mean to imply use of any specific trade names or products.

\[image\]

Discount drugs delivered to your door.

Mail Order Pharmacy Discount Program Helps You Save Money

Prescription drugs often play a crucial role in our everyday lives, even though health care costs continue to escalate and pharmacies are not always located conveniently nearby.

Michigan Farm Bureau’s pharmacy discount program is only a phone call away, Heartland Prescriptions Service, located in Omaha, Nebraska, can service all your pharmacy needs. They carry over 5,000 prescription, non-prescription, diabetic, ostomy and incontinent supplies, and durable medical equipment.

Heartland not only helps you to lower your pharmacy costs, but also provides the convenience of having the order delivered to your door.

The next time you need a prescription filled, take advantage of this member benefit by calling Heartland Prescriptions Service for a free price quote. Also, make sure you ask for their free catalog that contains coupons for additional savings.

Call 800-228-3353, between 8 a.m. and 5 p.m., Monday through Friday. It’s a simple telephone call that will save you time and money!

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