Hog market outlook for 1996?

Record high corn prices, coupled with the largest per capita supply of beef since 1986, has created uneasiness about the future profitability of cattle feeding. Low led cattle and high corn prices have affected all segments of the cattle industry, reducing feeder cattle, dairy calf and cow prices. This year has been particularly frustrating to cattle feeders because the price of corn has increased steadily, far exceeding the market's mid-August pre-harvest expectation of $2.70 to $2.80/bu. Technical trend lines, constructed in mid-August, which had an upside potential of $3.70/bu., have been breached.

The feeder cattle market has softened considerably since August, but it's been difficult to place cattle with a good likelihood of raising a profit — feeders that appeared to be priced "right" have tended to lose money as corn prices escalated. Also, the fed cattle market for cattle placed in the fall may end up trading $11 to $12/cwt. lower than expected.

All cattlefeeding operations are expected to squeeze profit margins. Cash hog prices are expected to range in the low 40's this spring, and is expected to be profitable?

Can cattle feeding be profitable?

by Steven Rust and Roy Black

R

Rising grain prices since last summer have added nearly $18 per cwt. to the cost of raising hogs, according to a 2nd Quarterly Market Research Service (IRS) hog outlook report. Feed cost currently accounts for 65 percent of cash expenses on smaller farrow-to-finish operations, particularly by spring. Strong export sales and seasonally higher feed use have contributed to quickly declining grain stocks. The U.S. average farm price of corn in December averaged $3.08 per bushel compared to $2.13 a year earlier. IRS is predicting that 1995-99 average price will fluctuate between $3 and $4.50 per bushel.

Pork supplies during the second half 1996 could be sharply higher compared to 1995 levels. Year-over-year increases in sows farrowing, more pigs saved per litter, and heavier carcass weights following last summer's heat-related declines could lead to 7 and 6 percent more production in the third and fourth quarters, respectively, compared to 1995 figures. More constrained increases are expected in the spring quarter following a 2 percent decline between January and March. The shift between first and second half pork supplies reflects improving profit conditions within the industry over the last 14 months, according to IRS.

Pork production this summer will come primarily from the December-January pig crop, which is expected to exceed 24.5 million head. A slight increase in the number of sows farrowing and additional gains in the number of pigs saved per litter will add about 300,000 head to the December-February pig crop. Annual increases in the number of pigs saved per litter continue to average nearly 2 percent.

This year's March-May crop could be up nearly 4 percent and the 1 million head from 1995, based on producers' intentions to have 2 percent more sows farrow and assuming gains in the number of pigs saved per litter continue.

So far in harvest, corn has occurred primarily by lifting cutting from breeding herds, fedded-gains eating the breeding herd during September-November declined nearly 13 percent from a year earlier, while sow slaughter fell 15 percent.

Hog production rates in 1996 will continue to squeeze profit margins. Cash hog prices are expected to range in the low 40's this spring. Continued on page 8

Problems and predictions for livestock producers

Michigan's livestock industry is facing challenges — rising input costs, oversupply and market saturation have forced producers to search for enhanced management skills to ride out the current downturn. The focus of this issue of the Michigan Farm News will provide profitable strategies for members to consider implementing in their operation.

Can cattle feeding be profitable?

by Steven Rust and Roy Black

R

Tight corn stocks are translating into prices reaching $3.75 per bushel or higher over the next few months, meaning continued woes for America's cattle producers and potential problems for the hog sector, according to MFB Livestock Specialist Kevin Kirk. But, he says, there is a light at the end of the tunnel, particularly for the producer who focuses on low-cost, high-quality meat production.

Kirk says that a drop in cattle herd expansion is needed and although the industry has moderated its expansion rate, the current growth has helped kill the market. He noted that expansion is not isolated to any particular region.

"There has been an upsurge over the last few years and a 3 or 4 percent expansion in beef cow will kill a market," Kirk said, noting that the growth rate could "certainly contribute to killing a market and that is basically what we have done."

Not all news is bad for cattle producers. Kirk says the market is pricing a premium for choice versus select beef. A possible prescription for producers is to grow higher quality beef — the type of beef desired by importers and restaurateurs. U.S. beef exports are strong at more than 7 percent of the total supply and are expected to continue to grow.

Kirk said large imports of live Mexican cattle last year was insignificant to the U.S. beef industry because the six-month import cycle was near the equivalent to a 13-month level.

Kirk noted that, despite a poor showing for cattle producers and their farm gate receipts in 1995, it was a record year for beef packers. "That's probably not news to anyone," he said.

Continued on page 15

INSIDE THIS ISSUE OF THE MICHIGAN FARM NEWS

Can cattle feeding be profitable? 4
Enterprise accounting 6
Determining your crop mix in '96 7
Custom feedlots — are they for you? 9
10 steps to cutting cow-calf costs 10
Riding out the downside of the cattle cycle 11
Should you consider grazing dairy cows? 11
Rethinking your dairy herd health program? 12
Tips for managing the BST herd 13
Networking for pork producers 14
Good nutrition improves dry cow health during calving 14

Segregated early weaning — increasing pork production without expansion 15
Effects of labor efficiency of feeder raising cost 15
Contract finishing hogs — Would it work for you? 16

Sell products and services in the Michigan Farm News classifieds — Page 17
February milk production up 4 percent

Michigan cattle numbers down

Bright outlook for U.S. meat exports

Export record

Russian chicken flap backwash

Cibal/Sandor merger

From the President

News in Brief

CRP “Early Out” option begins March 20

The farm trade surplus last year reached a record $25.8 billion. That level was 17 percent higher than the 1994 surplus. Imports totaled $55.6 billion, also a record, but imports were up 12 percent to $10 billion — with most of that increase from imports of rubber, coffee and cattle. Trade deficits for beef exports were up 15 percent to $2.6 billion, with half of those to Japan. poultry exports were up 29 percent to $2 billion, common exports were $1.1 billion, up $1.2 billion, and fresh exports were up 12 percent with a value increase of 34 percent expiring $4 billion; corn exports were up by 58 percent with China purchasing 5.4 million tons, and soybean shipments were up 26 percent to 2.2 million tons.

The farm trade surplus last year reached a record $25.8 billion. That level was 17 percent higher than the 1994 surplus. Imports totaled $55.6 billion, also a record, but imports were up 12 percent to $10 billion — with most of that increase from imports of rubber, coffee and cattle. Trade deficits for beef exports were up 15 percent to $2.6 billion, with half of those to Japan. poultry exports were up 29 percent to $2 billion, common exports were $1.1 billion, up $1.2 billion, and fresh exports were up 12 percent with a value increase of 34 percent expiring $4 billion; corn exports were up by 58 percent with China purchasing 5.4 million tons, and soybean shipments were up 26 percent to 2.2 million tons.

The farm trade surplus last year reached a record $25.8 billion. That level was 17 percent higher than the 1994 surplus. Imports totaled $55.6 billion, also a record, but imports were up 12 percent to $10 billion — with most of that increase from imports of rubber, coffee and cattle. Trade deficits for beef exports were up 15 percent to $2.6 billion, with half of those to Japan. poultry exports were up 29 percent to $2 billion, common exports were $1.1 billion, up $1.2 billion, and fresh exports were up 12 percent with a value increase of 34 percent expiring $4 billion; corn exports were up by 58 percent with China purchasing 5.4 million tons, and soybean shipments were up 26 percent to 2.2 million tons.

The farm trade surplus last year reached a record $25.8 billion. That level was 17 percent higher than the 1994 surplus. Imports totaled $55.6 billion, also a record, but imports were up 12 percent to $10 billion — with most of that increase from imports of rubber, coffee and cattle. Trade deficits for beef exports were up 15 percent to $2.6 billion, with half of those to Japan. poultry exports were up 29 percent to $2 billion, common exports were $1.1 billion, up $1.2 billion, and fresh exports were up 12 percent with a value increase of 34 percent expiring $4 billion; corn exports were up by 58 percent with China purchasing 5.4 million tons, and soybean shipments were up 26 percent to 2.2 million tons.
The Agricultural Market Transition Act of 1996: Commodity and conservation program provisions

by David B. Schweikhardt and Sandra S. Bata, Department of Agricultural Economics, Michigan State University; and Otto C. Doering, Department of Agricultural Economics, Purdue University

The Federal Agricultural Improvement and Reform Act of 1996 contains major revisions in farm commodity programs. Because many program implementation rules are still being developed, program participants are advised to consult their local offices of the Farm Service Agency for final program provisions in making their decisions.

Commodity program provisions

The Federal Agricultural Improvement and Reform Act of 1996 replaces the existing target price programs with Production Flexibility Contracts available to farmers for the 1996-2002 period. All existing Crop Acreage Restriction (CAR) Programs are eliminated. In addition, program participants are not required to purchase commodity or marketing assistance loans.

Contract Acreage

Contract payments will be calculated for each farm enrolled in the program. Payment rate contracts will allow participant farmers to set aside their contract acreages for 7 years after the expiration of any loan contract payments on those acres. Contract payments will be made in the following formula:

\[
\text{Contract Payment Rate} = \frac{\text{Annual Production Flexibility Contract Payment}}{\text{Annual Contract Payment}}
\]

Loan rates for corn, soybeans, and wheat are subject to a payment limitation of $400,000 per person. Marketing assistance loans will be subject to a payment limitation of $50,000 per person.

Sugar program provisions

The act retains the loan rate on raw cane sugar at 10 cents per pound and the loan rate on raw beet sugar at 22.7 cents per pound. These loans will be provided as recourse loans. If the U.S. sugar import guarantee is greater than the loan rate, the assessment on raw beet sugar will be directed toward priority conservation, environmental cost-share, and marketing assistance programs. If the loan rate is greater than the assessment, the assessment will be redirected toward priority conservation, environmental cost-share, and marketing assistance programs.

Nonrecourse marketing assistance loans

This program provides nonrecourse marketing assistance loans for feed grains, wheat, cotton, rice, and oilseeds for any participant entering into a Production Flexibility Contract. All nonrecourse marketing assistance loans from the enrolled farm will be eligible for nonrecourse marketing loans. The legislation establishes a loan rate for the 1996 crop season (1.1794 cents per pound for raw beet sugar) and provides conditions under which the Secretary of Agriculture may reduce loan rates. The act also establishes forat least five years. The bill also prohibits the removal of wetlands, filter strips, waterways and wildlife habitat.

Marketing assessments on cane sugar and processed beet sugar will also be established. The assessment will be paid by the first processor of sugar and will equal 1.1 percent of the value of the loan rate on raw cane sugar in 1996 and 1.1794 percent of the value of the loan rate on raw beet sugar in 1996. From 1997 until 2003, the assessment on raw cane sugar will be 1.375 percent of the value of the loan rate and the assessment on raw beet sugar will increase to 1.4725 percent.

Catalpa Cornfield: Farm bill conference okay, bills Program sign-up is anticipated to run from mid-May to August

Members of the House-Senate Farm Bill Conference Committee quickly adopted provisions of the measure known as "the Federal Agricultural Improvement and Reform Act of 1996." Farm Bureau officials were elated after the 50-hour conference and said they were "very pleased" and "very optimistic about making the rural environment." In addition, the bill provides conservation incentives that will enable farmers to conserve the environment, according to Kleckner. "Even though we didn’t get everything we wanted, the bill’s conservation provisions largely avoid the punitive, command-and-control approach that has raised farmer resentment." The House and Senate were expected to vote on the final version on March 28 and 29 before receiving approval from President Clinton. The Secretary of Agriculture said he would, "with reluctance," recommend that President Clinton sign the House-Senate compromise after he "gives the final bill a thorough review."

Glickman’s reservations about the new bill include a lack of provisions on transitional assistance and limits on the "rural safety net." He said he will begin work with Congress to repair and retain a rural safety net.

Marketing assessments on crop sugar and processed beet sugar will also be established. The assessment will be paid by the first processor of sugar and will equal 1.1 percent of the value of the loan rate on raw cane sugar in 1996 and 1.1794 percent of the value of the loan rate on raw beet sugar in 1996. From 1997 until 2003, the assessment on raw cane sugar will be 1.375 percent of the value of the loan rate and the assessment on raw beet sugar will increase to 1.4725 percent.

Daily provisions

Marketing assessments on crop sugar and processed beet sugar will also be established. The assessment will be paid by the first processor of sugar and will equal 1.1 percent of the value of the loan rate on raw cane sugar in 1996 and 1.1794 percent of the value of the loan rate on raw beet sugar in 1996. From 1997 until 2003, the assessment on raw cane sugar will be 1.375 percent of the value of the loan rate and the assessment on raw beet sugar will increase to 1.4725 percent.

Catalpa Cornfield: Farm bill conference okay, bills Program sign-up is anticipated to run from mid-May to August

Members of the House-Senate Farm Bill Conference Committee quickly adopted provisions of the measure known as "the Federal Agricultural Improvement and Reform Act of 1996." Farm Bureau officials were elated after the 50-hour conference and said they were "very pleased" and "very optimistic about making the rural environment." In addition, the bill provides conservation incentives that will enable farmers to conserve the environment, according to Kleckner. "Even though we didn’t get everything we wanted, the bill’s conservation provisions largely avoid the punitive, command-and-control approach that has raised farmer resentment." The House and Senate were expected to vote on the final version on March 28 and 29 before receiving approval from President Clinton. The Secretary of Agriculture said he would, "with reluctance," recommend that President Clinton sign the House-Senate compromise after he "gives the final bill a thorough review."

Glickman’s reservations about the new bill include a lack of provisions on transitional assistance and limits on the "rural safety net." He said he will begin work with Congress to repair and retain a rural safety net.

Marketing assessments on crop sugar and processed beet sugar will also be established. The assessment will be paid by the first processor of sugar and will equal 1.1 percent of the value of the loan rate on raw cane sugar in 1996 and 1.1794 percent of the value of the loan rate on raw beet sugar in 1996. From 1997 until 2003, the assessment on raw cane sugar will be 1.375 percent of the value of the loan rate and the assessment on raw beet sugar will increase to 1.4725 percent.

Daily provisions

Marketing assessments on crop sugar and processed beet sugar will also be established. The assessment will be paid by the first processor of sugar and will equal 1.1 percent of the value of the loan rate on raw cane sugar in 1996 and 1.1794 percent of the value of the loan rate on raw beet sugar in 1996. From 1997 until 2003, the assessment on raw cane sugar will be 1.375 percent of the value of the loan rate and the assessment on raw beet sugar will increase to 1.4725 percent.

Catalpa Cornfield: Farm bill conference okay, bills Program sign-up is anticipated to run from mid-May to August

Members of the House-Senate Farm Bill Conference Committee quickly adopted provisions of the measure known as "the Federal Agricultural Improvement and Reform Act of 1996." Farm Bureau officials were elated after the 50-hour conference and said they were "very pleased" and "very optimistic about making the rural environment." In addition, the bill provides conservation incentives that will enable farmers to conserve the environment, according to Kleckner. "Even though we didn’t get everything we wanted, the bill’s conservation provisions largely avoid the punitive, command-and-control approach that has raised farmer resentment." The House and Senate were expected to vote on the final version on March 28 and 29 before receiving approval from President Clinton. The Secretary of Agriculture said he would, "with reluctance," recommend that President Clinton sign the House-Senate compromise after he "gives the final bill a thorough review."

Glickman’s reservations about the new bill include a lack of provisions on transitional assistance and limits on the "rural safety net." He said he will begin work with Congress to repair and retain a rural safety net.

Marketing assessments on crop sugar and processed beet sugar will also be established. The assessment will be paid by the first processor of sugar and will equal 1.1 percent of the value of the loan rate on raw cane sugar in 1996 and 1.1794 percent of the value of the loan rate on raw beet sugar in 1996. From 1997 until 2003, the assessment on raw cane sugar will be 1.375 percent of the value of the loan rate and the assessment on raw beet sugar will increase to 1.4725 percent.

Catalpa Cornfield: Farm bill conference okay, bills Program sign-up is anticipated to run from mid-May to August

Members of the House-Senate Farm Bill Conference Committee quickly adopted provisions of the measure known as "the Federal Agricultural Improvement and Reform Act of 1996." Farm Bureau officials were elated after the 50-hour conference and said they were "very pleased" and "very optimistic about making the rural environment." In addition, the bill provides conservation incentives that will enable farmers to conserve the environment, according to Kleckner. "Even though we didn’t get everything we wanted, the bill’s conservation provisions largely avoid the punitive, command-and-control approach that has raised farmer resentment." The House and Senate were expected to vote on the final version on March 28 and 29 before receiving approval from President Clinton. The Secretary of Agriculture said he would, "with reluctance," recommend that President Clinton sign the House-Senate compromise after he "gives the final bill a thorough review."

Glickman’s reservations about the new bill include a lack of provisions on transitional assistance and limits on the "rural safety net." He said he will begin work with Congress to repair and retain a rural safety net.

Marketing assessments on crop sugar and processed beet sugar will also be established. The assessment will be paid by the first processor of sugar and will equal 1.1 percent of the value of the loan rate on raw cane sugar in 1996 and 1.1794 percent of the value of the loan rate on raw beet sugar in 1996. From 1997 until 2003, the assessment on raw cane sugar will be 1.375 percent of the value of the loan rate and the assessment on raw beet sugar will increase to 1.4725 percent.

Catalpa Cornfield: Farm bill conference okay, bills Program sign-up is anticipated to run from mid-May to August

Members of the House-Senate Farm Bill Conference Committee quickly adopted provisions of the measure known as "the Federal Agricultural Improvement and Reform Act of 1996." Farm Bureau officials were elated after the 50-hour conference and said they were "very pleased" and "very optimistic about making the rural environment." In addition, the bill provides conservation incentives that will enable farmers to conserve the environment, according to Kleckner. "Even though we didn’t get everything we wanted, the bill’s conservation provisions largely avoid the punitive, command-and-control approach that has raised farmer resentment." The House and Senate were expected to vote on the final version on March 28 and 29 before receiving approval from President Clinton. The Secretary of Agriculture said he would, "with reluctance," recommend that President Clinton sign the House-Senate compromise after he "gives the final bill a thorough review."

Glickman’s reservations about the new bill include a lack of provisions on transitional assistance and limits on the "rural safety net." He said he will begin work with Congress to repair and retain a rural safety net.

Marketing assessments on crop sugar and processed beet sugar will also be established. The assessment will be paid by the first processor of sugar and will equal 1.1 percent of the value of the loan rate on raw cane sugar in 1996 and 1.1794 percent of the value of the loan rate on raw beet sugar in 1996. From 1997 until 2003, the assessment on raw cane sugar will be 1.375 percent of the value of the loan rate and the assessment on raw beet sugar will increase to 1.4725 percent.
Can cattle feeding be profitable?

Table 3. Effects of various economic factors on net return and break-even prices of 725 lb yearling steers.

<table>
<thead>
<tr>
<th>Economic Factors</th>
<th>Impact of Changes in Economic Factors on Return and Break-Even Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Net Return ($/bu)</td>
</tr>
<tr>
<td>Sale Price</td>
<td>$100/bu</td>
</tr>
<tr>
<td>Purchase Price</td>
<td>$150/bu</td>
</tr>
<tr>
<td>Feed Price</td>
<td>$200/bu</td>
</tr>
<tr>
<td>Interest Rate</td>
<td>1 percentage point</td>
</tr>
<tr>
<td>Yardage</td>
<td>$0.05/day</td>
</tr>
<tr>
<td>Death Loss</td>
<td>1 percentage point</td>
</tr>
<tr>
<td>Performance</td>
<td></td>
</tr>
</tbody>
</table>

Table 4. Effects of whole and dry rolled corn in high concentrate ration on cattle performance.

<table>
<thead>
<tr>
<th>Rations</th>
<th>White-shelled</th>
<th>White-shelled and dry-rolled</th>
<th>Dry-rolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coloar</td>
<td>3.50</td>
<td>3.50</td>
<td>3.50</td>
</tr>
<tr>
<td>DM &amp; IB</td>
<td>19.0</td>
<td>17.9</td>
<td>17.5</td>
</tr>
<tr>
<td>Feedgain</td>
<td>6.03</td>
<td>5.96</td>
<td>5.99</td>
</tr>
<tr>
<td>Nebraska</td>
<td>2.75</td>
<td>3.05</td>
<td>2.97</td>
</tr>
<tr>
<td>DM &amp; IB</td>
<td>16.2</td>
<td>16.5</td>
<td>17.3</td>
</tr>
<tr>
<td>Feedgain</td>
<td>5.89</td>
<td>5.40</td>
<td>5.89</td>
</tr>
<tr>
<td>Cost of gain, $/bu</td>
<td>$150/bu</td>
<td>60.67</td>
<td>47.83</td>
</tr>
<tr>
<td>$100/bu</td>
<td>56.24</td>
<td>53.10</td>
<td>55.55</td>
</tr>
<tr>
<td>$40/bu</td>
<td>61.81</td>
<td>58.36</td>
<td>61.07</td>
</tr>
<tr>
<td>Profit if cattle are sold for:</td>
<td>67.38</td>
<td>63.62</td>
<td>66.59</td>
</tr>
</tbody>
</table>

**Table 1.** Estimated feedlot performance for yearling steers placed on feed at 750 lbs and fed a high concentrate ration.

<table>
<thead>
<tr>
<th>Weight (l)</th>
<th>750</th>
<th>800</th>
<th>850</th>
<th>900</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADG</td>
<td>3.50</td>
<td>3.62</td>
<td>3.74</td>
<td>3.86</td>
</tr>
<tr>
<td>DMI, Ib</td>
<td>17.9</td>
<td>18.0</td>
<td>18.1</td>
<td>18.2</td>
</tr>
<tr>
<td>Feed/gain</td>
<td>5.96</td>
<td>5.99</td>
<td>6.00</td>
<td>6.03</td>
</tr>
</tbody>
</table>

**Table 2.** Breakeven sale prices for various classes of cattle with two corn prices.

<table>
<thead>
<tr>
<th>Steers</th>
<th>Feed prices</th>
<th>Holstein</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase</td>
<td>$3.00/bu</td>
<td>$3.50/bu</td>
</tr>
<tr>
<td>weights, lb</td>
<td>$3.00/bu</td>
<td>$3.50/bu</td>
</tr>
<tr>
<td>350</td>
<td>62.39</td>
<td>70.38</td>
</tr>
<tr>
<td>500</td>
<td>61.40</td>
<td>68.57</td>
</tr>
<tr>
<td>650</td>
<td>60.24</td>
<td>65.95</td>
</tr>
<tr>
<td>800</td>
<td>59.89</td>
<td>61.90</td>
</tr>
</tbody>
</table>

**Table 3.** Effects of various economic factors on net return and break-even prices of 725 lb yearling steers.

<table>
<thead>
<tr>
<th>Economic Factors</th>
<th>Impact of Changes in Economic Factors on Return and Break-Even Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Net Return ($/bu)</td>
</tr>
<tr>
<td>Sale Price</td>
<td>$100/bu</td>
</tr>
<tr>
<td>Purchase Price</td>
<td>$150/bu</td>
</tr>
<tr>
<td>Feed Price</td>
<td>$200/bu</td>
</tr>
<tr>
<td>Interest Rate</td>
<td>1 percentage point</td>
</tr>
<tr>
<td>Yardage</td>
<td>$0.05/day</td>
</tr>
<tr>
<td>Death Loss</td>
<td>1 percentage point</td>
</tr>
<tr>
<td>Performance</td>
<td></td>
</tr>
</tbody>
</table>

Table 4. Effects of whole and dry rolled corn in high concentrate ration on cattle performance.

<table>
<thead>
<tr>
<th>Rations</th>
<th>White-shelled</th>
<th>White-shelled and dry-rolled</th>
<th>Dry-rolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coloar</td>
<td>3.50</td>
<td>3.50</td>
<td>3.50</td>
</tr>
<tr>
<td>DM &amp; IB</td>
<td>19.0</td>
<td>17.9</td>
<td>17.5</td>
</tr>
<tr>
<td>Feedgain</td>
<td>6.03</td>
<td>5.96</td>
<td>5.99</td>
</tr>
<tr>
<td>Nebraska</td>
<td>2.75</td>
<td>3.05</td>
<td>2.97</td>
</tr>
<tr>
<td>DM &amp; IB</td>
<td>16.2</td>
<td>16.5</td>
<td>17.3</td>
</tr>
<tr>
<td>Feedgain</td>
<td>5.89</td>
<td>5.40</td>
<td>5.89</td>
</tr>
<tr>
<td>Cost of gain, $/bu</td>
<td>$150/bu</td>
<td>60.67</td>
<td>47.83</td>
</tr>
<tr>
<td>$100/bu</td>
<td>56.24</td>
<td>53.10</td>
<td>55.55</td>
</tr>
<tr>
<td>$40/bu</td>
<td>61.81</td>
<td>58.36</td>
<td>61.07</td>
</tr>
<tr>
<td>Profit if cattle are sold for:</td>
<td>67.38</td>
<td>63.62</td>
<td>66.59</td>
</tr>
</tbody>
</table>

**Table 1.** Estimated feedlot performance for yearling steers placed on feed at 750 lbs and fed a high concentrate ration.

<table>
<thead>
<tr>
<th>Days on feed</th>
<th>Weight (lb)</th>
<th>ADG (l)</th>
<th>Feed/gain (lb)</th>
<th>Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>126</td>
<td>1100</td>
<td>2.57</td>
<td>5.97</td>
<td>0.92</td>
</tr>
<tr>
<td>147</td>
<td>1150</td>
<td>2.46</td>
<td>5.54</td>
<td>2.96</td>
</tr>
<tr>
<td>168</td>
<td>1200</td>
<td>2.34</td>
<td>10.13</td>
<td>2.80</td>
</tr>
<tr>
<td>189</td>
<td>1250</td>
<td>2.24</td>
<td>10.74</td>
<td>2.74</td>
</tr>
<tr>
<td>210</td>
<td>1300</td>
<td>13.13</td>
<td>11.36</td>
<td>2.68</td>
</tr>
</tbody>
</table>

Continued from front page

indicated that yearlings purchased in January and February were poor choices. Conversely, the same yearlings purchased in November or May were the most profitable. Even though these strategies should work on average, some years, losses could occur for cattle placed during the most profitable months. This strategy has the most potential for smaller feedlots that are not in the market frequently.

Historically, buying and selling cattle as often as possible has been an effective strategy by larger feedlots to moderate the volatility in cattle prices as sell "poor doers" and chronics when opportunity.
Table 5. Effects of different processing methods for corn on cattle performance in high concentration rations.

<table>
<thead>
<tr>
<th>Processing Method</th>
<th>Steam-flaked</th>
<th>Enrolled</th>
<th>Whole-shelled</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of basis</td>
<td>5</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>No. of cattle</td>
<td>1104</td>
<td>1130</td>
<td>1104</td>
</tr>
<tr>
<td>Roughage level, %</td>
<td>12.4</td>
<td>12.5</td>
<td>12.6</td>
</tr>
<tr>
<td>Grain level, %</td>
<td>60.2</td>
<td>60.1</td>
<td>60.0</td>
</tr>
<tr>
<td>ADG, lb</td>
<td>2.99</td>
<td>2.89</td>
<td>2.87</td>
</tr>
<tr>
<td>DM Intake, lb</td>
<td>18.82</td>
<td>18.92</td>
<td>19.28</td>
</tr>
<tr>
<td>Feeding fat</td>
<td>1.55</td>
<td>1.55</td>
<td>1.55</td>
</tr>
<tr>
<td>Breakdown, %</td>
<td>61.82</td>
<td>61.00</td>
<td>61.68</td>
</tr>
<tr>
<td>Cost of feed, $/bu</td>
<td>67.17</td>
<td>65.86</td>
<td>67.67</td>
</tr>
<tr>
<td>Amount you could afford to pay to process corn, $/bu</td>
<td>.023</td>
<td>.100</td>
<td>.028</td>
</tr>
<tr>
<td>@ $3.00/bu corn</td>
<td>.019</td>
<td>.117</td>
<td>.028</td>
</tr>
<tr>
<td>@ $4.00/bu corn</td>
<td>.011</td>
<td>.148</td>
<td>.030</td>
</tr>
<tr>
<td>Cost savings per $100</td>
<td>.011</td>
<td>.148</td>
<td>.030</td>
</tr>
</tbody>
</table>

No processing charge allocated toward the feed or yardage. Cost savings are $3.50/bu.
Adapted from Owens (1987).

Long-term outlook

The profitability of feeding cattle in northern Illinois (DeKalb, IL) has been highly volatile, but on average, it's been profitable (Figure 1). This region, which is representative of the Michigan industry, has experienced a pattern of large profits following periods of losses. In this historical trend, profits should be realized during periods of the next two years. Additionally, there is strong evidence that feeding to Michigan can compete with mega-sized feedlots in the High Plains. This competitive edge is generally provided by less expensive grain prices.

The cattle feeding industry is on the precipice of major change during the next 10 years. How the finished cattle are sold will change drastically toward value-based marketing. Cattle that don't fit market specifications will be severely discounted. Tracking systems will be implemented that allow identification of superior cattle and which cow-calf producers own them.

Continued from page 4

The regional manager for Corn Products at Alamo Rent-A-Car in Chicago, Ill., recommends that feeders who have keen management skills and good feeding systems will assist in improving the percentage of cattle to meet specifications for these niche markets. This period of transition or change creates many opportunities for astute managers. Cattle feeders who have learned management skills and good records will find expansion profitable. Mismanagement who don't have the benefit of record keeping systems will struggle and eventually exit the business.

Nutrition

- Make sure you have an ionophore in your diet to make efficient use of the corn. Ionophores increase the feed efficiency by 5 to 10 percent.
- Make sure your cattle are on an implant program.
- Try to feed a blend of grain types to improve feed conversion efficiency. The goal is to spread the digestion of the grains over a longer time period. For example, feed some wet and dry corn blend together. Another possibility is to feed corn with two different particle sizes (i.e., dry-rolled and whole-shelled) as shown in Table 4. In this analysis, cattle fed the blend provided $14.85 and $18.13 more profit than cattle fed either whole-shelled or dry-rolled corn as the sole grain source.

Yardage

- Increase the level of management in busier silos and stockpiled feedlots to minimize spoilage. Keep the face of busier silos fresh by rotating with a minimum of 3 to 4 inches from the face each day. In some cases, only rotation feeds exit spoilage. A good yardage can reduce the amount of face exposure and eliminate spoilage.
- Extensive processing of the grain may not be cost-effective. A comparison of what you can afford to pay to process corn is shown in Table 5. In this analysis, whole-shelled corn was used as the standard to compare other feeding and processing methods. To justify rolling corn, it would need to be paid at $0.10/bu. or less internally feed yardage skills to prevent feed spoilage. Attempt to maintain as consistent a daily feed delivery as possible.

10% OFF WEEKEND RENTAL

Certificate is valid for up to 10% off Alamo's low-noise low-rate weekend rental. But over a compact, midsize or full-size car for up to 4 days at the U.S.A. or Canada. Valid only on certificate rental, not to be used in conjunction with any other discount, promotional or commission rates, or an Alamo Express Plus® rental. • Please make your reservation at least 24 hours before arrival and present certificate on arrival. • Subject to availability at time of rental. • Certificate is not valid for rental of pickup trucks or vans, or campers, RVs or trailer rentals. • Certificate cannot be redeemed at airport locations. • Certificate is not valid for rentals in Mexico. • Certificate cannot be redeemed for cash or cash equivalent. • Certificate is not valid for use with any other offer, discount or promotion and cannot be replaced. • Certificate only valid at participating Alamo locations within the United States and Puerto Rico and is not valid for rental in Canada. • Certificate cannot be redeemed for cancellation of existing rental; all rentals must be prepaid at time of reservation. • Certificate cannot be transferred. • Certificate not valid on weekends or holidays. • Certificate is non-refundable and any unused portion will be void. • Alamo Rent-A-Car reserves the right to change the certificate terms at any time. • Alamo Reserve Number: 223212, or call Alamo Rent-A-Car at 1-800-354-2322 to be sure to request ID Number 223212, and Rate Code BY.

25% TOWARDS AN UPGRADE

Certificate is valid for 25% OFF TOWARDS UPGRADE charges to a higher car category. Just reserve a compact or car for up to 14 days at the U.S.A. or Canada. Only one certificate per rental, not to be used in conjunction with any other discount, promotional or commission rates, or an Alamo Express Plus® rental. • Please make your reservation at least 24 hours before arrival and present certificate on arrival. • Subject to availability at time of rental. • Certificate is not valid for rental of pickup trucks or vans, or campers, RVs or trailer rentals. • Certificate cannot be redeemed at airport locations. • Certificate cannot be redeemed for cash or cash equivalent. • Certificate is not valid for use with any other offer, discount or promotion and cannot be replaced. • Certificate only valid at participating Alamo locations within the United States and Puerto Rico and is not valid for rental in Canada. • Certificate cannot be redeemed for cancellation of existing rental; all rentals must be prepaid at time of reservation. • Certificate is not valid for use at airport locations. • Certificate not valid on weekends or holidays. • Certificate is non-refundable and any unused portion will be void. • Alamo Rent-A-Car reserves the right to change the certificate terms at any time. • Alamo Reserve Number: 223212, or call Alamo Rent-A-Car at 1-800-354-2322 to be sure to request ID Number 223212, and Rate Code BY.

Figure 1 — The profitability of feeding cattle in northern Illinois
Market Outlook

March 30, 1996

GRAIN STOCKS REPORT

T he Grain Stocks Report will help determine how much grain has disappeared up to this point. This should help answer the question of whether or not the market has begun to ration supplies. This is especially important for corn since this is our only source for estimating feed use to this point. Reports continue to be strong and we see little or no rationing. Check and see how the actual numbers differ from trade expectation to help determine direction.

HOGS AND PIGS REPORT

T he Hogs and Pigs Report will help determine how many hogs we have on hand and how many we are likely to have through this marketing year and into the next. This will help to project feed use from this point on. It should also help determine whether the hog price forecast has been correct and whether pork production this summer and fall will not be up, or whether the USDA December Hogs and Pigs Report, and the low sow slaughter, as seen for months are correct, pushing pork production up sharply. If the latter is true, it will cause a sharp drop in futures. Sow slaughter in February was up slightly and appears to be picking up as a percent of total slaughter.

PROSPECTIVE PLANTING REPORT

T he Prospective Planting Report will give us the information we need to correct the 1996-97 acres planted in the third column of all three tables below. Every numbers, submit of the same difference to get harvested acres, multiply the yield and check to see how it affects the total production number.

Depending on moisture levels in Kansas, Oklahoma and Texas the past two weeks, the wheat yield may need to be changed. If rains have occurred widely and low, leave the yield the same. If moisture has been short, lower yields up to three bushels per acre.

The USDA announced the sign-up for early release from CRP after the prospective planting survey was completed, which means the numbers may grow by planting. However, it was known the USDA would have some type of early year program before the survey was taken. There are 15.2 million acres eligible for early-out. The estimates range from 1.1-2.2 million acres that will be planted this spring. My estimates call for about 1.5 million acres being planted in a combination of crops, mainly feed grains and spring wheat.

CATTLE-ON-FEED REPORT

C heck to see what the Cattle Feed-Out Report showed. Were placements relative to last year down for the second month in a row? Were marketings strong? How many are on feed? These questions are important for both the crop and livestock producers. The on-feed and placement numbers should help us get a realistic look at this disappearances from now up to the new harvest.

The marketing numbers tell us how current we are. Weights are still above any year levels, but have dropped sharply from the fist of the year. The placements and on feed numbers will help determine this supply drawdown. When we do this feed-out report. If the reports cause relatives in grains or hogs, consider your pricing opportunities and make some moves. Also, range your forward handle, regardless of whether the information is bullish or bearish.

1997 NEW CROP PRICING OPPORTUNITIES?

One last suggestion - Check the December 1997 corn futures contract, and the November 1997 soybean contract, they look pretty good to me.

That's without any rolling of contracts and the corresponding spread risks - just the price you see minus your normal basis and basis risks.

ANDREW W. THOMAS, JR.

Enterprise accounting maximizing your profit potential

L et's say you're a hog producer operating a farm-to-finish operation. Do you have any idea what it costs to produce a feeder pig? Do you know for sure what it costs to finish that feeder pig? Should you focus on finishing hogs or fattening hogs?

As a cattle producer, do you know what it costs to raise a feeder calf? Based on your operation's past data, should you sell that feeder calf and cash contract out, or hold it back and feed yourself, and finish out that calf using your own?

Undoubtedly, most producers have confounded these questions mentally as they struggle with high feed costs and depressed markets. Mike Fassler, vice president of livestock management in farrow to finish, suggests the questions could be considerably easier to answer if those producers were using enterprise accounting. "Enterprise accounting empowers the producer with an entrepreneurial tool or sampling to help break down and understand what's happening on your farm. It's the first step in finding out what your costs are, what your income is, and how you can run your operation better." Fassler explains.

When we hit a time like we have right now in the livestock industry, the guys that have some sort of enterprise accounting system online are able to make better decisions — whereas the guys that need to make a decision but can't because their information is all included catch-ups on a crisis time period," Fassler said. "The time to really implement a system is before you really need it." Fassler said that when clients initially start setting up an enterprise accounting system, Fassler attempts to have all of the answers prepared and the program ready to start with the beginning of the new calendar or fiscal year. Using a standard format as a starting point, Fassler and the farmer-client then don't have a reason to reassess what you made, which the particular needs of that operation.

Although a computerized bookkeeping system is not a necessity, Fassler recommends one, since it makes the data retrieval so much quicker and easier. Fassler also recommends a double entry accounting system to improve the accuracy of enterprise accounting.

Managers need to be convinced that the data obtained from enterprise accounting will be worth the added bookkeeping and frustration to be successful, stresses Fassler, particularly when attempting to allocate costs on major capital items such as tractors and other pieces of equipment.

Fassler generally recommends going through the depreciation schedule and making estimates on pieces of equipment from the beginning to allocate to just one enterprise. Producers may also want to consider logging hours and on-the-go recordkeeping to keep track of usage. These numbers ensure more enterprise accounts. As an added measure, Fassler will often compare producer allocations for equipment usage against standard industry equipment allocations. Fassler's Tiftfarm annual reports to see if the allocation percentages are similar.

Cost allocation is really the trick to this whole concept, because your allocations will have a lot to do with the end results," warned Fassler. "If you don't have a reasonable and accurate way to do the allocations, the results aren't going to be all that meaningful."
Determining your crop mix in '96

by Gerry Schwab and Roy Black

The process to calculate break-even yields and prices of the challenger crop is illustrated in the worksheet. As the example situation described, soybeans yielding 40 bushel per acre at the break-even price of $5.96/bu will compete with corn yielding 130 bu/acre priced at $2.70/bu. Or alternatively, soybeans that can be priced at $6.75/bu will require a break even yield of 53.5 bu/acre to compete with the corn enterprise as described.

Table 2 presents a matrix of break-even soybean prices for alternative sets of soybean-corn yield combinations. If, for example, you believed that the relevant yield set for your farm was a 140 bu corn yield in comparison to a 40 bu soybean yield, the break-even price for soybeans to compete with corn, with the production costs as described would be $6.25/bu. A soybean price higher than those in Table 2 for the relevant yield combinations would favor more acres into soybeans. Table 3 presents a matrix of break-even soybean yields for alternative sets of soybean-corn price combinations where the base yield ratio of corn to soybean is 3.25, i.e., 130 bushel corn yield potential in relation to 40 bushel soybean yield potential. For example, if your planning prices, possibly already locked in, were $7.05 per bushel of soybeans and $2.90 per bushel of corn, the break-even yield for soybeans to challenge corn for planted acreage is 57.4 bushels per acre.

Continued on page 8

LAST YEAR WE FINANCED 17 MILLION ACRES, ONE SQUARE FOOT AT A TIME.
Determining your crop mix in '96, continued

Table 2 — Break-even Soybean Price (Challenger)

<table>
<thead>
<tr>
<th>Corn PRICE ($/Bu)</th>
<th>Soybean PRICE ($/Bu)</th>
<th>30</th>
<th>35</th>
<th>40</th>
<th>45</th>
<th>50</th>
</tr>
</thead>
<tbody>
<tr>
<td>$2.70</td>
<td>$6.15</td>
<td>$6.45</td>
<td>$6.75</td>
<td>$7.05</td>
<td>$7.35</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 — Break-even Soybean Yield (Challenger) with 3.25 Corn/Soybean Yield Ratio

<table>
<thead>
<tr>
<th>Corn YIELD (bu/acre)</th>
<th>Soybean YIELD (Bu/Acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>130 Bu/Acre</td>
<td>$6.15</td>
</tr>
<tr>
<td>140 Bu/Acre</td>
<td>$6.45</td>
</tr>
<tr>
<td>150 Bu/Acre</td>
<td>$6.75</td>
</tr>
<tr>
<td>160 Bu/Acre</td>
<td>$7.05</td>
</tr>
</tbody>
</table>

Table 4 — Break-even Soybean Yield (Challenger) with 3.5 Corn/Soybean Yield Ratio

<table>
<thead>
<tr>
<th>Corn YIELD (bu/acre)</th>
<th>Soybean PRICE ($/Bu)</th>
</tr>
</thead>
<tbody>
<tr>
<td>140 Bu/Acre</td>
<td>$6.15</td>
</tr>
<tr>
<td>150 Bu/Acre</td>
<td>$6.45</td>
</tr>
<tr>
<td>160 Bu/Acre</td>
<td>$6.75</td>
</tr>
<tr>
<td>170 Bu/Acre</td>
<td>$7.05</td>
</tr>
<tr>
<td>180 Bu/Acre</td>
<td>$7.35</td>
</tr>
</tbody>
</table>

Continued from page 7

Table 4 presents data similar to Table 3 with the exception that the base yield ratio of corn to soybeans is relatively higher at 3.5:1. At 140 bushel corn yield relative to a 40 bushel soybean yield. As the relative corn yield to soybean yield increases, the greater is the yield requirement for soybeans to compete. For the price set discussed in the previous paragraph of $7.05/bu corn and $2.90/bu, the break-even yield for soybean is to compete with 140 bushel corn yield increases to 41.1 bushels per acre.

As the planting season progresses, the expected yield relationships between competing crops can change. In the corn soybean situation, as we get later into the planting season the expected yield for an earlier planted crop as corn may decline, whereas soybeans may just be entering their optimal planting time and the corn soybean yield ratio will decline. So, in the event of a late spring or planting delayed from the optimal dates, you may need to rethink your estimated break-even yields in order to adapt to the situation as it evolves.

Summary

The cropping decision mix in '96 has fewer institutional restrictions and possibly more lucrative forward pricing opportunities than in previous years. These institutional changes have lowered the risk management safety net provided to farmers. This situation creates the need for farm managers to plan ahead by evaluating their crop mix alternatives, and associated costs of production, and implement a risk management plan that might lend discipline to their marketing activities.

This paper has focused primarily on a budgeting procedure to evaluate pairs or sets of cropping alternatives in addressing the question of "what to plant in '96." Let us be proactive in managing the farm business and plan to be successful in 1996.

Break-even Analysis for Comparing Alternative Crops Worksheet

<table>
<thead>
<tr>
<th>Defender Crop</th>
<th>Soybeans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yield of Defender</td>
<td>Yield of Soybeans</td>
</tr>
<tr>
<td>Price of Defender</td>
<td>Price of Soybeans</td>
</tr>
<tr>
<td>Preharvest Costs a.</td>
<td>Preharvest Costs a.</td>
</tr>
<tr>
<td>Harvest Costs b.</td>
<td>Harvest Costs b.</td>
</tr>
<tr>
<td>Drying and Marketing Costs a.</td>
<td>Drying and Marketing Costs a.</td>
</tr>
<tr>
<td>Sum of Variable Costs</td>
<td>Sum of Variable Costs</td>
</tr>
<tr>
<td>Fixed Costs Defender</td>
<td>Fixed Costs Defender</td>
</tr>
<tr>
<td>Return to Fixed Costs Defender</td>
<td>Return to Fixed Costs Defender</td>
</tr>
<tr>
<td>Challenger Crop</td>
<td>Soybeans</td>
</tr>
<tr>
<td>Yield of Challenger</td>
<td>Yield of Soybeans</td>
</tr>
<tr>
<td>Price of Challenger</td>
<td>Price of Soybeans</td>
</tr>
<tr>
<td>Preharvest Costs a.</td>
<td>Preharvest Costs a.</td>
</tr>
<tr>
<td>Harvest Costs b.</td>
<td>Harvest Costs b.</td>
</tr>
<tr>
<td>Drying and Marketing Costs a.</td>
<td>Drying and Marketing Costs a.</td>
</tr>
<tr>
<td>Sum of Variable Costs</td>
<td>Sum of Variable Costs</td>
</tr>
<tr>
<td>Fixed Costs Challenger</td>
<td>Fixed Costs Challenger</td>
</tr>
<tr>
<td>Return to Fixed Costs Challenger</td>
<td>Return to Fixed Costs Challenger</td>
</tr>
</tbody>
</table>

To calculate the break-even of the challenger:

| Break-even Price + (Defender Price - Challenger Price) = Yield Challenge |
|-------------------|-----------------------|
| 13. Yield of Challenger | 14.5 |
| 14.5 - 0.06 | 13.46 |
| 13.46 - B. | 13.46 - 0.06 | 13.4 |

Break-even Yield = (Challenger Price - Defender Price) / Yield Challenge

<table>
<thead>
<tr>
<th>13. Yield of Challenger</th>
<th>14.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.5 - 0.06</td>
<td>13.46</td>
</tr>
<tr>
<td>13.46 - B.</td>
<td>13.46 - 0.06</td>
</tr>
</tbody>
</table>


Hog market outlook for 1996

Continued from front page

showing a slight season gain during the summer months. Prices next fall may decline to the mid-$30 per cent, based on current production estimates.

Lower retail prices are likely for 1996 due to increased in both pork and competing meat production. Retail prices averaged $1.95 in 1995, compared to $1.98 a year earlier. Despite large drops in live animal prices, retail prices are expected to only drop 1 cent per pound, meaning that the farm retail spread will widen considerably.
Custom feedlots — are they for you?

Above left to right: Dave, John and Tim Stoneman, along with brother, Bill, and father, Dale, operate a 1,500-head custom feedlot operation in Gratiot County.

L ast fall's feeder calf price had many feeder calf producers contemplating retained ownership in an attempt to garner a better return. Whether that strategy turns out to be right one or not, many of those feeder calf producers looked to custom feedlots as a means of finishing out their feeders.

According to Dave Stoneman, interest in using custom feedlots was the highest it had ever been last fall. Stoneman, along with brothers Bill, Tim, and father Dale, operates Stoneman Farms, which includes 5,000 acres of corn, soybeans, sugar beets, and a 1,500 head custom feedlot operation. “We had to turn cattle away last fall because we didn’t have any room left,” he said.

The Stoneman operation started experimenting with custom feeding cattle in the mid-90s. After getting the system fine-tuned and firmly established, the operation phased out feeding their own cattle and concentrated solely on custom feeding.

“We felt we’d do a good job of feeding cattle; and we saw this as an opportunity to help reduce and manage our risk,” Stoneman explains. “With custom feeding, we have a pretty good idea of what we’re going to be making on those cattle.”

Stoneman charges a daily yardage fee of 25 cents per head, plus the cost of feed. Owners are billed on a monthly basis for the yardage fee and feed costs for their respective pens of cattle. The only variable, Stoneman explains, is the percent of space utilized. Feedlots are generally at full capacity during the winter months, while the feedlots may only operate at 60 to 70 percent of capacity during the summer months.

“The Stoneman operation’s 1,500 head capacity is spread over three different locations, with room for approximately 700 head on slatted floors. Typical pen size is roughly 80 head, although groups as small as 65 head will be accepted, depending on the market. Pen size is critical since all cattle are kept separate for ease of recording and calculating daily feed consumption and costs.

“We have the capability to track our feed costs and to bill owners on a monthly basis,” Stoneman explained. “When owners order pigs and shipped, the owner is provided with a ‘close-out’ report generated off a computer, that shows average in-weight, average selling weight, average daily gain, feed consumption per head, and days on feed. The computer program also allows entering interest rates for owners who are operating on borrowed money, and for opportunity costs for those operating on a cash basis. Finally, the close-out report calculates average cost per pound of gain, and return on investment.

Unfortunately, escalating feed costs have pushed the average cost per pound of gain, which includes the yardage fee, from 45 cents to nearly 70 cents, says Stoneman. The ratios generally consist of 80 percent shelled corn, and some corn silage, billed at $31 per ton. They’re started using corn in recent months since it’s high in energy, fat and fiber.

Although the Stonemans grow corn in their cash crop rotation, their corn is generally sold through normal channels. Corn fed to the cattle is brought back to keep costs and enterprises separated. Although their local cooperative, BM& Coopera, offers producers an opportunity to lock in their feed costs, that decision rests with the owner of the cattle, says Stoneman.

Medicine and vet costs, like the feed, are passed on at cost, directly to the owner. In dealing with death losses, Stoneman says the owner of the cattle stands the loss on the first 2 percent, while the Stonemans stand the cost on the third percent. Losses on anything over 3 percent revert back to the owner. The average death loss has been held at 1 percent, and generally attributed to respiratory complications.

Although custom feedlots generally don’t stand any of the death loss, Stoneman says the fact that they’re willing to stand a percentage of the loss puts their clients more at ease and confident that their cattle will get the best care possible. “The structure that we use provides an incentive to us, and it encourages the owner to send us healthy cattle,” he advises.

Almost all of the cattle fed out through the Stoneman operation are colored cattle, with very few holsteinics put through the facility. Although weights have ranged from 550 pounds to as high as 950 pounds, the operation will typically feed yearlings.

Cattle are generally fed a minimum of 120 days, says Stoneman. “Anything fed less than 120 days just doesn’t have the chance to grade as good,” he said. Working with the Michigan Livestock Exchange’s St. Louis facility, most cattle are shipped direct to packers including Ada Beef, BIP or MOFAC.

Is a custom feedlot a viable option? Although the timing may not be the best to do so for some producers, there may be an opportunity for others in the near future, depending on the corn market.

“Nobody had any idea that the corn market would do what it’s done. But this (custom feeding) is just another way to extend that marketing window and hopefully, make better money on fed cattle,” Stoneman concluded.

The cards of choice.

Whether you want a PPO, HMO, or Managed Traditional health care plan...

Whether you want dental, vision, or prescription drug benefits...

Whether you want a basic, no-frills plan or first dollar coverage...

You can get it from Farm Bureau and Blue Cross Blue Shield of Michigan.

Choice of plans, choice of doctors and hospitals, choice of coverage and choice of service.

With Blue Cross and Farm Bureau, the choice is yours.

For more information, call your county Farm Bureau office, contact your nearest Farm Bureau Insurance agent, or call 800-292-2680, ext. 3240 or 3239.
10 steps to cutting cow-calf costs

by Danny D. Simms, Kansas State University

Why place so much emphasis on cutting costs?

During the past few years, economists and animal scientists from several states have studied the differences between low- and high-profit cow-calf producers. These studies have shown that the following factors have the greatest impact on profitability:

- Costs of production
- Reproductive rate
- Wearing weights

End of all of these factors with the greatest impact on profitability is the cost of production. Correspondingly, these studies have shown that the factors that produce the most cost savings have the greatest impact on profitability in terms of a cow-calf enterprise. In other words, producers need to be aware of the current phase of the cattle cycle and the outlook for at least a couple of more years before making major investment decisions.

Why isn't weaning weight a better predictor of profitability?

Some producers use weaning weight as an indicator of profitability as opposed to weaning weight. The reason is that many producers understand weaning weight as an indicator of profitability as opposed to knowing the cost of production. As a result, they are less likely to purchase high-value cattle. On the other hand, knowing the cost of production helps producers determine their cost basis and adjust their management practices accordingly.

Step 1 — Determine Your Cost of Production

A review of the typical costs associated with a cow-calf enterprise shows that feed costs are one of the few items that are potentially insured. The next phase of the cattle cycle and the outlook for at least a couple of more years of low prices is imperative that you determine your cost of production.

As a minimum, you should determine your feed requirements for production and the price per pound of feed in your area. The next phase of the cattle cycle and the outlook for at least a couple of more years of low prices.

Consider the Stage of Production of the Cows — The energy requirements for a beef cow vary tremendously during the year based on progesterone levels. For a cow in estrus, the energy requirement can be as high as 35 pounds of feed per day. However, this reduction occurs during the spring and summer months, when the cows are not in estrus. In this period, the cows may be in negative energy balance. Therefore, it is important to analyze the stage of production of the cows in your herd to determine the appropriate energy requirements.

Step 2 — Minimize the Use of Harvested Forages

The previous suggestions on the factors influencing profitability indicate that high-profit producers employ management practices that reduce the amount of harvested forages used by the herd. This goal can be accomplished by implementing one or more of the following practices:

- Supervise the use of crop residue — Crop residues are typically the cheapest feedstuff utilized during the year. Consequently, making maximum use of this resource is essential to maximizing profitability in many cases. Maximizing the use of this resource requires matching the number of animals in the herd to the amount of crop residue available rather than to the amount of pasture available.

Consider the Stage of Production of the Cows — The energy requirements for a beef cow vary tremendously during the year based on progesterone levels. For a cow in estrus, the energy requirement can be as high as 35 pounds of feed per day. However, this reduction occurs during the spring and summer months, when the cows are not in estrus. In this period, the cows may be in negative energy balance. Therefore, it is important to analyze the stage of production of the cows in your herd to determine the appropriate energy requirements.

Step 3 — Optimize the Use of Protein Supplements

For many producers, protein supplements represent the major "cost of pocket" feed expense. Consequently, getting the most "bang-for-your-buck" is crucial. The following recommendations should be taken into consideration:

- Test Feed Protein — It is simply impossible to minimize the expenditure for protein supplements while meeting the needs of the cows without knowing the protein level of the basal feed. Consequently, feed should be analyzed for moisture and crude protein as a very minimum because this will allow the use of minimal protein supplementation while still meeting the needs of the cows.

Remember, there are "no free lunches" in the cattle business. If you don't know the cost of production, it is difficult to reduce costs if you don't know the cost of production. It is difficult to reduce costs if you don't know the cost of production.
Ah, the crisp spring air, the re-birth of the growing season, the start of another battle with the great outdoors—it’s spring cleaning time again! But wait, before you grab your wash bucket, rakes and wheelbarrows, take a look at the area you spend at least part of your day in every day—the kitchen—and be sure it’s free of harmful germs that could halt your prowess with the pruning shears.

According to University of Arizona at Tucson researcher Charles Gerba, the kitchen is the most germ-laden room in the house. To validate his theory, Gerba studied 200 sponges collected from homes around the Miami area and found that 20 percent or one out of five sponges contained staphylococcus or salmonella—the two leading causes of food-borne illness in America.

Bacteria themselves are tiny creatures, most ranging from 1 to 10 micrometers (1 micrometer equals 0.000039 inch), and are extremely variable in the ways they obtain energy and sustenance. They can be found in nearly all environments—from air, soil, water and ice to hot springs, even the hydrothermal vents on the deep ocean floor are the home of sulfus metabolizing bacteria.

Could your kitchen be an innocent incubator for a bacterial infection? According to Gerba, sponges are the greatest culprit for bacterial cross-contamination. “People will wipe down one area, then wipe another with the same sponge,” elaborates Gerba. “If they are wiping up raw meat blood, then use the same sponge to wipe something else, they can spread the fecal coliform bacteria that is found on meat and poultry.”

Here are some tips, based on Gerba’s research, for keeping your kitchen sparkling clean and healthier for you and your family:

1. Always wash your hands before you start cooking, immediately after handling raw meat, after you finish cooking and before you wipe counters. Using an anti-microbial soap and drying your hands thoroughly with paper towels increases the protective power of hand washing.
2. Designate separate food preparation areas: one for preparing uncooked meat, another for preparing produce, and another for slicing meat after it is cooked. Each area should have its own cutting board and a separate set of utensils.
3. Cook food thoroughly and eat it as soon as possible after preparation. Some researchers believe nearly all food poisoning could be prevented by always eating foods within 90 minutes of preparation.
4. Refrigerate leftovers as soon as possible and always reheat thoroughly before eating. The notion of letting foods cool before refrigerating is a holdover from the days of ice chests, when hot leftovers would cause the ice to melt quickly.
5. Buy antibacterial sponges. Ordinary sponges have 450 times the number of germs as antibacterial ones. If you use an ordinary sponge or dishcloth, disinfect it regularly in a mixture of bleach and water, and wash it in the dishwasher every day.
6. Rinse dishes thoroughly after washing and allow them to air dry whenever possible. If you dry dishes with a towel, be sure the towel dries completely between uses and launder it frequently. A damp dish towel can grow and spread germs just like a dishcloth or ordinary sponge.
7. Designate separate sponges for different cleaning tasks: one for doing dishes, one for wiping counters, one for kitchen floor, one for cleaning the bathroom, etc. Designating a sponge for each job will help reduce the risk of spreading germs. Assigning a particular sponge color to each job is an easy way to avoid confusion.
8. Even the most immaculate kitchen can be guilty of underestimating the resiliency of bacteria by forgetting the basics of disinfection and cross-contamination. Fight the bacteria battle and win in your own kitchen—but don’t let your guard down or they’ll be back! Now get back to that spring cleaning.

Is your kitchen a playground for germs?
Researchers at Penn State University recently demonstrated the point when on separate days they gave several dozen women one of three different types of yogurt: low-fat, low-calorie; low-fat, high-calorie; and high-fat, high-calorie. Half of the women's yogurts were labeled either low- or high-fat while the other received unmarked yogurts. The researchers then measured the amount the women ate at a lunch served a half-hour later.

When the women ate yogurt labeled low-fat, they rationalized that they could indulge more at lunch. But when they were given unmarked yogurt, they were more tuned into their bodies' physical cues and naturally adjusted the amount they ate. "It's not that the women ate less when the fat was marked, they took in more calories at lunch than when they ate the high-fat yogurt," explains Dr. Barbara Rolls, one of Penn State's researchers. Reducing the amount of fat, especially saturated fat, helps in the battle against heart disease, but counting calories still counts in the battle of the bulge. So, if losing or maintaining your weight is your goal, check both the fat and calorie content of the foods you eat.

Immunization Record

<table>
<thead>
<tr>
<th>Type of Immunization</th>
<th>Enter dates, name/initials of provider, and other information below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polio (OPV)</td>
<td>Recommen. ages Date received</td>
</tr>
<tr>
<td>Diphtheria, Tetanus,</td>
<td>2 months 4 months 6 months 4 years</td>
</tr>
<tr>
<td>Pertussis (DT, DTaP, Td)</td>
<td>DTP, DTP, DTP, DTP + IPV + Td</td>
</tr>
<tr>
<td>Measles</td>
<td>Recommen. ages Date received</td>
</tr>
<tr>
<td>Mumps</td>
<td>2 months 4 months 6 months 4 years</td>
</tr>
<tr>
<td>Rubella (MMR)</td>
<td>2 months 4 months 6 months 4 years</td>
</tr>
<tr>
<td>Haemophilus Influenza Type b (Hib)</td>
<td>Recommen. ages Date received</td>
</tr>
<tr>
<td>Hepatitis B (HBV)</td>
<td>Birth 1/2 months 1-2 mos. at 4 mos. 12 months</td>
</tr>
<tr>
<td>Chickenpox (VZV)</td>
<td>Recommen. ages Date received</td>
</tr>
</tbody>
</table>

**15 Tips to Eating More Fruits, Vegetables and Grains**

1. Experiment with unfamiliar vegetables and fruits. Try collards, kale, red leaf lettuce, broccoli, cauliflower, dandelion greens, jicama, mango, kiwi, starfruit and less-moderate

2. Prepare your own "fruit sticks" easily. Combine fruit juice and small chunks of fruit, pour into a paper cup, add a popscicle stick and freeze until firm.

3. Make a refreshing, lower-calorie beverage by mixing fruit juice with seltzer water and crushed ice.

4. Give nuts and other soy products a try. They are a good source of vegetable protein and contain phytochemicals which may reduce cancer risk.

5. Boost the fiber in your favorite breakfast cereal by sprinkling on a teaspoon or two of unprocessed bran or adding some 100% bran cereal. Be sure to drink plenty of fluids when increasing the fiber in your diet.

6. Turn balsamic vinaigrettes into a main dish by topping with reduced-fat cheese and a generous helping of steamed fresh broccoli. Or top with a mixture of black beans, browned ground turkey breast, corn and salsa.

7. Experiment with a variety of flavored syrups in salads or in other dishes - a splash of raspberry vinaigrette on greens, or a tab of balsamic vingarette on a brown rice salad with chopped tomatoes and basil leaves.

8. Substitute evaporated milk for whipping cream in many recipes.

9. In many recipes, you can replace each ounce of unflavored condensed milk with these tablespoon-unsweetened chocolate with three tablespoons unsweetened cocoa powder for the same flavor without the fat.

10. Much of the fat in cake comes from the brown sugar. Top instead with slices of fresh fruit, fruit sauce or a sprinkle of powdered sugar.

11. Replace mayonnaise on sandwiches with mustard or salad for a fat-free taste sensation.

12. At salad bars, skip over the mayonnaise-laden salads and oily marinated beans. Emphasize fresh greens and vegetables with fat-free or reduced dressing.

13. Enjoy a fat-free cookie or two, but remember that "no fat" doesn't mean zero calories.

14. You can substitute two egg whites for each whole egg in most recipes.

15. It's okay to alter cooking directions on the back of processed foods to control fat or salt. Use two-thirds of the seasoning packets in a rice mix, or make macaroni and cheese mix without the butter or margarine.

---

**Healthy Snacks**

Don't take leftover antibiotics for a cold or flu. Two out of three Americans think incorrectly that antibiotics can kill viruses, according to one survey. Penicillin and most other antibiotics work only against bacterial infections, such as strep throat, not against viral infections such as colds and flu. Take antibiotics only when your doctor prescribes them. Take them for the full length of time as recommended -- that way you should have none left over. Don't keep any leftovers for future use.

A II kinds of remedies have been advocated for hiccups -- here's the latest. Briefly apply ice to the sides of the neck at the level of the Adam's apple. This works by interrupting the reflex nerve signals that cause the contractions of the diaphragm.

Drinking the leftover milk from your breakfast cereal is a significant amount of the vitamin added to most milk. Most cereal is a good source of vegetable protein and contains phytochemicals which may reduce cancer risk.

Boost the fiber in your favorite breakfast cereal by sprinkling on a teaspoon or two of unprocessed bran or adding some 100% bran cereal. Be sure to drink plenty of fluids when increasing the fiber in your diet.

Turn balsamic vinaigrettes into a main dish by topping with reduced-fat cheese and a generous helping of steamed fresh broccoli. Or top with a mixture of black beans, browned ground turkey breast, corn and salsa.

Experiment with a variety of flavored syrups in salads or in other dishes - a splash of raspberry vinaigrette on greens, or a tab of balsamic vingarette on a brown rice salad with chopped tomatoes and basil leaves.

Substitute evaporated milk for whipping cream in many recipes.

In many recipes, you can replace each ounce of unflavored condensed milk with these tablespoon-unsweetened chocolate with three tablespoons unsweetened cocoa powder for the same flavor without the fat.

Much of the fat in cake comes from the brown sugar. Top instead with slices of fresh fruit, fruit sauce or a sprinkle of powdered sugar.

Replace mayonnaise on sandwiches with mustard or salad for a fat-free taste sensation.

At salad bars, skip over the mayonnaise-laden salads and oily marinated beans. Emphasize fresh greens and vegetables with fat-free or reduced dressing.

Enjoy a fat-free cookie or two, but remember that "no fat" doesn't mean zero calories.

You can substitute two egg whites for each whole egg in most recipes.

It's okay to alter cooking directions on the back of processed foods to control fat or salt. Use two-thirds of the seasoning packets in a rice mix, or make macaroni and cheese mix without the butter or margarine.

---

**My total cholesterol is high, but so is my level of HDL (good) cholesterol. How important is a low-fat diet for someone like me?**

A recent study in the Journal of the American Medical Association reported that, at least for people with a history of heart disease, the ratio of total cholesterol to HDL, or good cholesterol, is the most accurate predictor of heart disease risk. Your high overall cholesterol may denote a risk that is significant, or it might be quite low; discuss your numbers with your doctor.

Regardless of the risk suggested by these tests, a moderately low-fat diet is recommended for virtually everyone over age 20 to prevent unhealthy cholesterol levels. That means no more than 30 percent of daily calories from fat.

If following that guideline does not bring the ratio of your total cholesterol to HDL, cholesterol to a healthy level, then further reduction in saturated fat is recommended.

Besides reducing the risk of heart disease, a low-fat diet based largely on grain products, fruits and vegetables is one of the major steps you can take to reduce your cancer risk.

---

**Don't Be Wary of Dairy**

Most people who think they're lactose intolerant -- unable even to put cream in their coffee or milk on their cereal -- can probably drink moderate amounts of milk without discomfort.

Of 30 supposedly lactose-intolerant Minnesota residents, 9 actually could digest milk perfectly well. And after drinking a full glass of milk with breakfast every day for weeks, none of the 30 volunteers reported having problems with gas, bloating, pain or diarrhea.


**Exercise Maintains Immunity**

There's now more evidence that regular exercise helps to retard the decline in immune function that typically accompanies aging. Whether they exercised or not, older volunteers had lower immunity than members of a youthful comparison group. But certain measures of immune response were found to be stronger in older numbers than in their sedentary counterparts.


**Memory: Use it or Lose it**

Aging takes its toll on certain aspects of memory -- such as the ability to put names to faces. But a study of college professors confirms earlier research suggesting that staying mentally active can help preserve more sophisticated tests of memory.

Professor aged 60 to 71 held their own, against younger people on measures of memory, reasoning and problem solving. Performance on such tests typically declines sharply with age. Source: Psychological Science, September 1995.

Because the supplements do not officially advertise any sleep-promoting or other health claims, they are not being regulated as drugs, and thus do not have to be proven effective.

Some researchers caution that we don't know the long-term consequences of these hormones, and they urge people to first try non-pharmaceutical approaches to sleeplessness, such as relaxation exercises and regular bedtime routines.

By Karen Collins, registered dietitian with the American Institute for Cancer Research in Washington, D.C., the only major non-profit group devoted to research in diet and cancer. Callers may contact the institute at 800-842-8174, 9 a.m. to 5 p.m. weekdays, with health-related food questions.
Genetic Disease

Unraveling origins of illness: progress and possibilities.

About 60 trillion cells make up your body, within each cell's nucleus are 23 pairs of chromosomes. Each chromosome contains thousands of genes that determine your heredity. Genes use the chemical DNA to instruct cells to make proteins. Instructions are spelled out by a specific code of four molecules: adenine (A), thymine (T), cytosine (C) and guanine (G). A single mistake in a code can disrupt a protein's function and lead to disease.

Discoveries lead to new paths

One scientist links a gene to a particular disease, they must determine if other genes or defects may also be involved. For example, of the two genes involved in hereditary breast and ovarian cancers, scientists estimate at least 58 mutations in the BRCA1 gene.

The next step is to develop a test to detect the genetic flaw, often by analyzing a blood sample. Blood tests are available to detect many hereditary diseases, such as cystic fibrosis, Huntington's disease and hemophilia.

The genetic test for Huntington's disease took only a few months to develop. Other involving multiple genetic links can take much longer. Genetic testing for hereditary breast and ovarian cancers may be available within two years.

Usually, the benefits of genetic testing are limited to identifying risk, not diagnosing the disease. Counseling regarding family planning and lifestyle decisions can be helpful in these situations. Yet the value of testing remains limited until researchers can develop treatments for high-risk people.

In addition, ethical questions complicate scientific issues. For example, how do you feel about being tested for a disease that may develop years later? How will a medical institution protect your privacy? Should you know if your unborn child will develop an incurable disease?

Long road ahead

By 2005, scientists worldwide hope to identify all 100,000 or more human genes through the Human Genome Project. Preparing specific genes will allow scientists to decode the estimated 3 billion bits of genetic information in each cell. This is the first step in understanding the molecular origins of a genetic disease—and eventually curing it.

But the road from discovery to therapy is long, difficult and costly. During the past decade, scientists have collected data on about 6,300 human genes.

As gene analysis continues, treating genetic diseases by correcting the error or replacing the abnormal gene may become a reality.

Reprinted from January 1996 Mayo Clinic Health Letter with permission of Mayo Foundation for Medical Education and Research, Rochester, Minnesota 55905. For subscription information, call 800-333-9037.
Although the high price of corn hasn’t helped many hired labor. Labor is included under both categories, doing can you go back to sleep?” Bartlett tasked. Then the next two grew 2.2 percent in 1994 and 2.4 percent in 1995. her father. Examples could be feed, medicine and a.m. and wonder how your cattle down at the feedlot Bartlett offers the following food for thought: the bills to pay are added up and then subtracted a “survive and thrive” plan for their operation. weaned calves and sell them as yearlings, suggests According to Bartlett, if the cost will grow even more as we try to reduce the size of the feedyard. “It’s true the imports from Canada and Mexico are not some variables. Bartlett contended that the basic problem is one of oversupply in the beef industry. The next two or three years and there’s no quick fix:” say there are several ways to increase numbers and analyzed, feed is the major cost. The cost for main- taining the cow is a millstone around the neck of the cattle. “It’s really naive to think a person can afford to go without the above.” When you wake up at 1: a. c. t. m. ...”It’s no hard to understand the level of frustra- tion and the desire for higher milk prices as a solution to this situation. Higher prices aren’t going to make way for the possibilities in the semi- seasonal system. Let’s take the 6,000-cow stall barn with a flat barn in one end and so could milk 75 to 100 cows in 2 hours during the summer. They would have a 3-day breeding season for these spring calves and then a 5-day fall calving (winter breeding) window for the cows who missed the spring calving window. There should be enough cash flow to hire some extra help to help us get back on track.” Right, you need to consider going into a semi- seasonal system? Let’s take the 6,000-cow stall barn with a flat barn in one end and so could milk 75 to 100 cows in 2 hours during the summer. They would have a 3-day breeding season for these spring calves and then a 5-day fall calving. Getting back to my original question— Should we grazed dairy cows? If “we” means all dairy farmers, the answer obviously is NO. There are many farm systems for at least some of our cows. “We” is the best option for all concerned. If you can handle the risk. When you wake up at 1: a. c. t. m. ...”It’s no hard to understand the level of frustra- tion and the desire for higher milk prices as a solution to this situation. Higher prices aren’t going to make way for the possibilities in the semi- seasonal system. Let’s take the 6,000-cow stall barn with a flat barn in one end and so could milk 75 to 100 cows in 2 hours during the summer. They would have a 3-day breeding season for these spring calves and then a 5-day fall calving. Getting back to my original question— Should we grazed dairy cows? If “we” means all dairy farmers, the answer obviously is NO. There are many farm systems for at least some of our cows. “We” is the best option for all concerned. If you can handle the risk. When you wake up at 1: a. c. t. m. ...”It’s no hard to understand the level of frustra- tion and the desire for higher milk prices as a solution to this situation. Higher prices aren’t going to make way for the possibilities in the semi- seasonal system. Let’s take the 6,000-cow stall barn with a flat barn in one end and so could milk 75 to 100 cows in 2 hours during the summer. They would have a 3-day breeding season for these spring calves and then a 5-day fall calving. Getting back to my original question— Should we grazed dairy cows? If “we” means all dairy farmers, the answer obviously is NO. There are many farm systems for at least some of our cows. “We” is the best option for all concerned. If you can handle the risk. When you wake up at 1: a. c. t. m. ...”It’s no hard to understand the level of frustra- tion and the desire for higher milk prices as a solution to this situation. Higher prices aren’t going to make way for the possibilities in the semi- seasonal system. Let’s take the 6,000-cow stall barn with a flat barn in one end and so could milk 75 to 100 cows in 2 hours during the summer. They would have a 3-day breeding season for these spring calves and then a 5-day fall calving.
Twenty years of herd health hasn't helped to reduce calving intervals, suggesting that dairy producers and their veterinarians need to rethink their breeding and herd health strategies, says Dr. John Ferry of Adams, N.Y. Ferry, who serves as consultant in practice in northern New York, was in Michigan recently as a guest speaker at a series of dairy producer meetings sponsored by Monsanto.

Ferry says that the calving interval, used as a standard measure of a successful reproduction program, was at 15.1 months in 1972. Today, the average calving interval is actually at 13.5 months, suggesting that producers have needlessly spent a great deal of money on herd health. "The northeast DHI data that we use does not justify the financial investment dairy producers have made in reproduction programs over this time period, unless we agree that without our herd health programs, the calving interval would have actually increased more dramatically," Ferry said. "I would be more concerned with controlling the distribution of the calving interval to reduce the percentage of cows with a calving interval long enough to justify culling."

Although the ideal calving interval will vary from farm to farm, based on production levels, milk price and feed price, Ferry contends that losses associated with calving intervals under 14.5 months are minimal in high producing herds. He monitors the percent of cows conceived past 155 days in milk as a measure of success in controlling the distribution of the calving interval. Herds with less than 20 percent conception past 155 days are ranked excellent, while herds less than 25 percent are acceptable. "In problem herds, over 30 percent, and in some cases as high as 40 percent of conceptions take place after 155 days in milk," he said.

Another measure used by Ferry to determine the success of a herd breeding program is the percent of cows past 200 days in milk that are confirmed pregnant. In herds with an excellent breeding program, 95 percent of the cows are pregnant, while herds with less than 80 percent confirmed pregnant past 200 days are considered problems, says Ferry. "Many people would ask, 'Why wait until 300 days? Wouldn't you like to see them pregnant at 100 or 150 days?' That's true, but in the management style of the large dairies I work with — basically over 20 head — the management routine is to breed the cows A.I. in the high group before moving them in mid-lactation at 150 days to the low group where there are typically bulls running with the cows," Ferry explained.

Improving Conception Rates

Body score change is a big factor in the success of the breeding program, says Ferry, and can often point to other management problems, specifically feeding and nutrition. While overall body score is important, he says producers really need to focus on the score loss and that ideally a cow should lose less than one point of body score for improved conception rates.

"We want the cow to calve typically at 1.5, and we don't want her to drop below 2.5 at her peak weight loss in early lactation," Ferry advised. "So, part of our monthly visit involves monitoring what's going on with body score and whether we're properly compensating weight loss or whether we're putting excessive weight on the cows."

Based on his experience, Ferry said cows that lost less than one body score had a 55 percent conception rate, while those that lost more weight than one body score dropped to 17 percent conception rate on first service.

Ferry also relies heavily on prostaglandin therapy as opposed to intrauterine antibiotics, saying the results and the costs make the antibiotic therapy hard to justify in most cases. "Then those who believe that intrauterine antibiotics are of benefit must realize that such antibiotic use can only be justified if it is necessary and if there is no equal or better alternative," he said.

Ferry recommends using a prostaglandin therapy starting 14 days after calving, followed by another dose after the desired waiting interval for breeding. Most of Ferry's clients typically use a 60-day waiting period, although many went to 90 days following last summer's breeding problems.

"That prostaglandin program will vary for every dairy, based on how easy it might be to give the shots, but generally the program centers a shot every 14 days until we see the cow is in standing heat and get her bred," Ferry said. "Using percent of conceptions past 155 days in milk as a measure, the prostaglandin protocol has been extremely successful when compared to infections."

Ferry acknowledges that managing the cow following calving day is a tricky proposition and, in extreme cases, may require the intrauterine antibiotic treatment. One other option, says Ferry, could be the use of an intramuscular hypertonic saline solution.

Using a prostaglandin program also helps in dealing with poor heat detection, which continues to be an unresolved problem on many operations, says Ferry. Compounding the problem even more, missed heats are often mishandled and attributed to a cow being on heat, resulting in additional vet costs and breeding delays.

Cycling several cows on the same day increases heat activity, with some studies suggesting that standing heat frequency will increase tenfold. "Studies have shown that trained observers detected 56 percent of heats, while continual observations found 95.5 percent of heats. By grouping a majority of heats into a space of just a few days following scheduled prostaglandin injections, producers can increase the intensity of observation for standing heat during this period," Ferry concluded.

**Just Plant Your Corn**

**Then Apply the Prowl**

**And Get On With**

**Other Things.**

You don't have any time to waste. That's why you use Prowl® herbicide as part of your corn wire program. Get your corn planted early. Then, before the corn comes up, come back with Prowl in a tank-mix with Bicep® Blades® or atrazine. You've got your corn off to a good early start with affordable residual control of triazine-resistant lambsquarters, velvetleaf and foxtails. Now you have more time for other things. That's it. We're here to control weeds, not waste your time. For more information, see your Cyanamid Agricenter™ dealer or call 1-800-942-0500.

Tips for managing the bST herd

Agriculture Secretary Dan Glickman has announced an advisory committee to examine the packer concentration situation. The panel includes eight producer-representatives, seven representatives from the Federal Trade Commission, four government representatives and three economists. Glickman said the panel will hold three or four meetings, before finalizing recommendations by June 7. He is relying on the group to review the evidence of concentration in agriculture and make recommendations for further actions.

The secretary also said he will urge Attorney General Janet Reno to keep the U.S. meat industry under review for possible anti-competitive practices. He had not asked the Justice Department to take any action, but noted that the report on packer concentration showed there was no evidence of wrongdoing by the four major U.S. meat packers.

Just a few more seasons and he'll be off to college...

Better call your Farm Bureau Insurance agent right after the game.

By starting now, you can give your family the kind of future you want them to have...a future that includes college, a paid-off mortgage, and enough money to keep the family together. Even if something happens to you, a plan from Farm Bureau Life Insurance of Michigan can make sure your dreams live on.

We are the only Michigan-based company named one of the top 50 outstanding life insurers in America, based on safety, security and financial performance. Call your Farm Bureau Insurance agent today.

Making your future more predictable
Networking for pork producers

Pork producers are increasingly aware that their place in the "pork food chain" is more than just their role in the production process. The health of their operation, whether they are using artificial insemination or not, may have a direct impact on the quality of their product. Pork producers have the opportunity to improve their livestock management and profitability by focusing on the different aspects of their operation.

Michigan Pork Alliance members have developed this Checklist and Operation Audit to help producers enter into a networking arrangement. Michigan Pork Alliance members will play a major role in securing legislative changes, access to capital, and marketing opportunities. This information is necessary for Michigan's swine industry to grow and develop to meet increasing demand at home and abroad.

Pork producers have never had greater opportunity than exists today. Integration of this growing industry is likely to continue as long as it is possible. Integration will probably succeed where networking fails. Those producers willing to adapt may find it possible to sell animals in a more advantageous position as an essential link in the pork chain.

Building/Contracting

- Determine a building design and site layout. Take into account genetic potential, soil types and setback requirements.
- Make sure the site plan is consistent with local zoning laws.
- Determine if state and land use permits are required (Department of Environmental Quality, Land and Water Management).
- Develop an estimate of the buildings and site work, feed handling and structural facilities, internal and external movement, water and waste systems, and animal handling facilities.

Environmental Stewardship

- Develop a land management plan in the event of a farm conservation plan.
- Secure adequate land base for manure application.
- Prepare a nutrient management plan, including a cropping sequence and application of nutrients that may conflict with the manure disposal timing.
- Conduct exploratory meetings with neighbors, other producers and potential partners.
- Develop an exit strategy for producers who wish to sell all their equipment, transfer or otherwise leave the arrangement.

Public Relations

- In order to be effective with public relations, you need to follow good management practices, keep your facility neat and clean, and know your neighbors. Be a good neighbor and get involved in the community.
- Start a public relations campaign to address issues before they become a problem. Be a positive force on the board of the producers the production unit will make to agriculture and the local community.
- Have an open house for neighbors prior to a general open house for associates, suppliers and other interested parties.
- Take your neighbors complaint seriously. Talk with your neighbors in person when possible, and describe management changes that will address their concerns.

Checklist and Operation Audit

- Plan buildingszto facilitate efficient manure handling.
- Determine if state and land use permits are required (Department of Environmental Quality, Land and Water Management).
- Develop an estimate of the buildings and site work, feed handling and structural facilities, internal and external movement, water and waste systems, and animal handling facilities.
- Establish a marketing plan.
- Build the enterprise into the overall farm business. Is a value-added product in the future? How does it depend on other enterprises and the local economy.
- Develop a contingency plan in the event of a farm conservation plan.
- Submit plans for approval to business partners and the farm manager.
- For more information and a resource list, contact Larry M. Granger, DVM, Michigan Pork Alliance Networking Coordinator and Swine Species Veterinarian, Michigan Department of Agriculture, Phone: (517) 373-8223, Fax: (517) 373-6805.
Segregated early weaning — increasing pork production without expansion

Growing pains and a disease to increase the number of farrowings per year had Kalamazoo County hog farmer Tim Vosburg looking for ways to do it without building additional facilities, or sacrificing herd health. SEW or Segregated Early Weaning system he had been looking for.

With SEW, pigs are weaned at 14 days and more per sow are "weaned" away from sow at a lower cost and reduces the chance of the pig picking up any diseases from the sow. Vosburg, who operates Vosburg Farms, a 1,450-sow and 2,000-cow operation in partnership with his father, Jan, was in need of additional farrowing room when the operation first started using SEW. The farrowing room was reaching 80 animals a month but only had 46 crates available. The development of new feeds finally made SEW a viable option for Vosburg who implemented the program about 18 months ago. "The key to SEW makes it difficult to accurately compare production averages currently, however."

Vosburg has had pigs weaned at 14 days, they're kept there for another five weeks before being moved into lots at approximately 40 pounds. Reducing disease exposure and the number of pen changes results in reduced stress, which improves production gains, according to Ohio State University. Research there showed that pigs raised under SEW finished 10 days faster than older pigs. "Every time you move more feed or change the feed, you set it back two or three days," Vosburg explained. "So when you get the finish, pig back four days and that just keeps adding up. That's the biggest reason we made the change.

Vosburg's nursery has been in existing feed facilities on a raised wire mesh floor, complete with a heating and ventilation system that keeps the temperature at a constant 82 degrees and provides a complete air change every 20 minutes in the winter months, and once every two minutes in the summer months. Humidity control, says Vosburg, is critical. "If you can keep it dry, a lot of the diseases will never show up," he said.

Space requirements for a 14 day old pig aver- age 1.6 square feet per pig, while 50 pound pigs require 2.6 square feet. Vosburg designed his pens according to space requirements for the larger pigs, and uses a divider panel to split the pens and increase capacity for the smaller pigs following SEW. During the first week of SEW or the first "first stage," Vosburg recommends moving pigs every four to five hours to help make the feeding transition from the sow to the feeder. After the first week, pigs are accustomed to the feeder and have feed available at all times.

While the feed itself can be costly, Vosburg says the biggest price increase is the feed saved in feeding the sow more than justifies the expense. "It might take me 50 cents to feed the baby pigs, but it would take $100 to feed the sow to get the same nutrition in those babies pigs," he explained. "To match the feed and nutrition of those pigs, you need to have approximately 20 pigs per sow to produce 40 lbs of pork per day to make it.

In terms of sow health, Vosburg says quick wean has been the biggest challenge. It's using laytime within 24 hours of farrowing to ensure cleanliness, followed up with a hormone treat- ment, called PG-00 at weaning to help bring the sow back into heat quicker. No special procedures are required to adjust the sow to the quicker dry-off, either says Vosburg.

Other changes at the Vosburg operation have been substantial as well. A total of 400 new gilts were brought into the operation a year ago and a full replacement program has been instituted to replace approximately 150 sows per year. Artificial insemination was also started past December of 1997. In 90 percent of the herd to speed up genetic im- provement. Vosburg also contracts with a neighbor to produce pigs to fill out his hog pens.

Although Vosburg has been able to successfully renovate and use existing facilities, in an ideal world the nursery should actually be located offsite, at least a quarter-mile upriver from the sow facili- ties. "You would also have someone else taking care of the pigs to reduce the chance of spreading dis- ease even more," he explained. "When you're in here with the sow, every day, and then you're turning around and walking into the nursery, you're still taking the disease in there with you."

So, despite renovation costs and learning a "new" whole system, would Vosburg ever go back to the previous system? "I think that the pigs are so much healthier that I would not turn back around now — there's no way I would ever go back," he concluded.

Labor efficiency

Labor is the second largest expense associat- ed with raising sows. Feed is the largest expense. Together, feed and labor make up 55 percent of the total cost of raising a dairy replacement. Effects

Labor efficiency is one way to analyze how well labor is being used. To analyze labor associ- ated with dairy replacements, a measure called "heifers per labor hour" is used. Heifers per labor hour measured how many dairy replacements are taken care of in one labor hour. This measure includes time to feed, clean bed, move and manage heifers. The higher the value, the more efficient the labor.

The average heifers per labor hour for the eight farms studied was 49.1, with a range of 37.5 to 74.2. To further analyze labor efficiency within the heifer enterprise, the study examined the heifer feeding program, the effects of lactation, and the level of labor practices on total labor costs. Problems and predictions for livestock producers

Continued from front page

"The bottom line is the people who make money in the beef industry in 1995 were not those who 'carnal, it was those who said beef. And there's a big distinction."

He said that feedlot operators had a "break- even" year in 1995, showing profits of $1 per head, which was much better than in 1994. Overall, Kirk predicts a 4 percent drop in cattle prices paid to producers for 1996. The price predictions are much lower than other market analysts have said.

On the hog side — 1995 was a record year for hog production with nearly 900 million head. Kirk said one factor contributing to this record was a 16 percent increase in the processing and slaughtering capacity of U.S. packers. U.S. hog productivity is heading toward reduc- tion, with the level near 2,400 pounds-per- sow, but it would take a hog and production, like cattle, is expanding. He's surprised that the industry has continued to grow in the face of $3.75 corn.

Kirk predicts that the major hog producing states — Iowa, Kansas, Missouri, North Carolina, Ohio, Tennessee and Oklahoma — will see all increase in hog numbers that year. But, noting 30-year trend lines, he said the start of a hog liquidation trend could begin to reveal itself.

On the bright side, for the first time in over 40 years the U.S. has become a net pork exporter. "The fact is GATT and NAFTA are working in the hog market...we are taking sales away from Denmark substantially," Kirk explained. "We have finally moved to a net exporter of pork, after 40 years as a net importer of pork. It go out on a limb and say the U.S. may well, within 10 years, be the world's dominant exporter of pork because of trade barriers being broken down.

Kirk speculates the average hog price for 1996 will be around $49.50 per hundredweight, up nearly $1.50 per hundredweight over last year's average. But, he said, the break- even price for producers is expected to be around $47 to $48 when the higher corn prices are figured in.

The key to the hog and cattle markets is the corn market, advised Kirk. "Cattle in feedlots and hogs eat lots of corn so high corn prices naturally translate into higher costs of production — cutting into the producers' bottom line," he said.

"We're 10 percent increase in the price of corn...700 to 800 pound steers go down by about 60 cents per hundredweight," Kirk added. "Current prices are still 8 percent higher than last year's prices on the yearlings and more than 10 percent higher in terms in terms of by-products returned to producers on their cattle."

Building to a Higher Standard

$30,395.00

54' x 18' x 9' Deluxe Machinery Storage

- 24' x 16' KINNEAR® Double End Door
- 12' x 15' KINNEAR® Double End Door
- 12' x 13' KINNEAR® Standard Door
- 12' x 10' KINNEAR® Standard Door
- 90' x 14' Walkover Gutters on Sides
- 90' x 14' Polyethylene Rainwater System on Roof

$23,75.00

45' x 12' x 9' Basic Machinery Storage

- 24' x 16' KINNEAR® Standard Door
- 24' x 16' KINNEAR® Double End Door
- 12' x 15' KINNEAR® Standard Door
- 12' x 13' KINNEAR® Standard Door
- 90' x 14' Walkover Gutters on Sides
- 90' x 14' Polyethylene Rainwater System on Roof

- 24' x 16' KINNEAR® Standard Door
- 24' x 16' KINNEAR® Double End Door
- 12' x 15' KINNEAR® Standard Door
- 12' x 13' KINNEAR® Standard Door
- 90' x 14' Walkover Gutters on Sides
- 90' x 14' Polyethylene Rainwater System on Roof

- 24' x 16' KINNEAR® Standard Door
- 24' x 16' KINNEAR® Double End Door
- 12' x 15' KINNEAR® Standard Door
- 12' x 13' KINNEAR® Standard Door
- 90' x 14' Walkover Gutters on Sides
- 90' x 14' Polyethylene Rainwater System on Roof
**Discussion Topics**

### Value-added processing

**April 96**

A monthly resource for the community
Action Groups of Michigan Farm Bureau

The prosperity in the future Michigan agriculture template is likely to be dominated by the increased value to our traditional farm commodities. Adding value to agricultural products can take place on the farm or virtually anywhere in the marketing chain. Value-added activities can take on many forms, including on-farm packaging, direct selling, and cooking and serving gourmet food products.

Michigan’s value-added success stories include: Graceland Foods’ dried fruit products, Michigan Milk Producers’ Association powdered ice cream, and controlled atmosphere storage that has extended the “fresh” market season for Michigan apples.

**Discussion Questions**

**1.** What is the definition of a value-added food product?

**2.** How do we encourage value-added processing in the state?

**3.** How can we encourage value-added processing in the state?

**4.** What is the most important way to encourage value-added processing in the state?
March 30, 1996

Michigan Farm News Classifieds

Pasture Mat
The Golden Standard in Cow Comfort

This is the only mat that feels, gives and behaves like natural pasture—thereby reducing impact-related injuries.

Pasture Mat Features:
- Made with the finest materials and craftsmanship
- Multi-coiled mattress filled with uniformly cut and treated wood shavings
- Will not rut, stretch, or deform as its shreds of hemp, bamboo, and corn. Non-organic Pasture Mat does not support production of bacteria.

For more information, call 1-800-722-8070.

Michigan Farmland Classifieds

Farm Machinery
1038 STACK LINER WAGON. Like new condition. Proud to sell. Call 1-517-643-2244.

1959 JOHN DEERE 430W with three point, $5,000. 1-517-643-2244.

1974 GLEANER C with 4-row wide corn head and 17 row grain head. 1979 Ford 7200, 44' pickup. Engine needs work. Call evenings. 1-616-674-5581.


AC727 PLANTING UNITS for sale. $50 each. 1-517-331-6235.

AC 180 DIESEL TRACTOR; new model 50 50 belt or 50 pt. 1-517-395-2100.

ALUMINUM TERMINATION SYSTEM for sale. Will cover five acres, 2x 4x 10 gravel bed. 1-517-372-2945.

BADGER RING dive silo unloading, 10 diameter wide. Excellent condition! Diplomat silo. 8,500 bu. 1-517-867-4642.

FARM FANS: AB250 grain dryer. Hutchinson 8x4 transport auger. 1-517-644-3519.

HARVESTER AG SYSTEMS, 1-800-792-8070.

FARM FANS: CBB370 grain dryer. Excellent condition. 1-517-867-0700.

FARM FANS: CBB390 grain dryer. Excellent condition. 1-517-867-0700.

HARVEST AG SYSTEMS, 1-800-792-8070.

FORD, NEW HOLLAND tractors and equipment from Smyth i n G e n e t i c s , for 44 years your best deal for the long run. 1-517-664-4545, Gaines.

Place your ad for 6 months, get phone number or name in red Place your ad for 1 year, get phone number or name in red and also save $1.00 per ad.

Call 1-800-986-3129 for details.

MICHIGAN FARM CLASSIFIEDS

March 30, 1996

Michigan Farm News Classifieds

Pasture Mat
The Golden Standard in Cow Comfort

This is the only mat that feels, gives and behaves like natural pasture—thereby reducing impact-related injuries.

Pasture Mat Features:
- Made with the finest materials and craftsmanship
- Multi-coiled mattress filled with uniformly cut and treated wood shavings
- Will not rut, stretch, or deform as its shreds of hemp, bamboo, and corn. Non-organic Pasture Mat does not support production of bacteria.

For more information, call 1-800-722-8070.

Michigan Farmland Classifieds

Farm Machinery
1038 STACK LINER WAGON. Like new condition. Proud to sell. Call 1-517-643-2244.

1959 JOHN DEERE 430W with three point, $5,000. 1-517-643-2244.

1974 GLEANER C with 4-row wide corn head and 17 row grain head. 1979 Ford 7200, 44' pickup. Engine needs work. Call evenings. 1-616-674-5581.


AC727 PLANTING UNITS for sale. $50 each. 1-517-331-6235.

AC 180 DIESEL TRACTOR; new model 50 50 belt or 50 pt. 1-517-395-2100.

ALUMINUM TERMINATION SYSTEM for sale. Will cover five acres, 2x 4x 10 gravel bed. 1-517-372-2945.

BADGER RING dive silo unloading, 10 diameter wide. Excellent condition! Diplomat silo. 8,500 bu. 1-517-867-4642.

FARM FANS: AB250 grain dryer. Hutchinson 8x4 transport auger. 1-517-644-3519.

HARVESTER AG SYSTEMS, 1-800-792-8070.

FARM FANS: CBB370 grain dryer. Excellent condition. 1-517-867-0700.

FARM FANS: CBB390 grain dryer. Excellent condition. 1-517-867-0700.

HARVEST AG SYSTEMS, 1-800-792-8070.

FORD, NEW HOLLAND tractors and equipment from Smyth i n G e n e t i c s , for 44 years your best deal for the long run. 1-517-664-4545, Gaines.

Place your ad for 6 months, get phone number or name in red Place your ad for 1 year, get phone number or name in red and also save $1.00 per ad.

Call 1-800-986-3129 for details.


**FARM AUCTION WITH FOOD & FARM EQUIPMENT**

**Due to recent knee injury, current continues farm operation. 8599 Harler Road, Lake Township, MI.**

Judy and Bill Broman, 1-989-244-2868.

**WANTED: Farms and land for 45 head cow/calf. **

Mr. and Mrs. Forest (Tufty) Wolfrom, 517-651-5392.

**FARM AUCTION WITH FOOD & FARM EQUIPMENT**

**Due to death of son, Thomas R. Semms, and due to my health. 320 Austin Rd., Ovid, MI.**

John & Karen, 6670 E Juddville Rd., Owosso via M-21 to Baldwin Rd., 2 miles south to Dewy Rd., 2 miles west to center of Dewy Rd. and Owosso Hwy.

Sat. Apr. 6, 1996, 10:30 a.m. Public Listing. Jim & Scott Sykora, Auctioneers 6670 E Juddville Rd., Owosso via M-21 to Baldwin Rd., 2 miles south to Dewy Rd., 2 miles west to center of Dewy Rd. and Owosso Hwy.

**300 Series Reel Auger**

**Features the following advantages:**

- Low weight due to fully welded and forming.

- Excellent performance, low maintenance and low price.

- Great for keeping your lawn in shape.

New models available:

3575 & 3700

For more information or to receive the retail price list, contact:

**FARM FURNACE WITH FOOD & FARM EQUIPMENT**

**Due to change in business, I am discontinuing farming. 14137 Dry Rd., Chesaning, MI.**

Saginaw County (2 miles north of M-57 via M-18 to Dry Rd., 1/2 mile west).

Tues April 9, 1996, 10:30 a.m.

**FARM AUCTION WITH FOOD & FARM EQUIPMENT**

**Due to death of son, Thomas R. Semms, and due to my health. 320 Austin Rd., Ovid, MI.**

John & Karen, 6670 E Juddville Rd., Owosso via M-21 to Baldwin Rd., 2 miles south to Dewy Rd., 2 miles west to center of Dewy Rd. and Owosso Hwy.

Sat. Apr. 6, 1996, 10:30 a.m. Public Listing. Jim & Scott Sykora, Auctioneers 6670 E Juddville Rd., Owosso via M-21 to Baldwin Rd., 2 miles south to Dewy Rd., 2 miles west to center of Dewy Rd. and Owosso Hwy.

**FARM AUCTION WITH FOOD & FARM EQUIPMENT**

**Due to death of son, Thomas R. Semms, and due to my health. 320 Austin Rd., Ovid, MI.**

John & Karen, 6670 E Juddville Rd., Owosso via M-21 to Baldwin Rd., 2 miles south to Dewy Rd., 2 miles west to center of Dewy Rd. and Owosso Hwy.

Sat. Apr. 6, 1996, 10:30 a.m. Public Listing. Jim & Scott Sykora, Auctioneers 6670 E Juddville Rd., Owosso via M-21 to Baldwin Rd., 2 miles south to Dewy Rd., 2 miles west to center of Dewy Rd. and Owosso Hwy.

**FARM AUCTION WITH FOOD & FARM EQUIPMENT**

**Due to death of son, Thomas R. Semms, and due to my health. 320 Austin Rd., Ovid, MI.**

John & Karen, 6670 E Juddville Rd., Owosso via M-21 to Baldwin Rd., 2 miles south to Dewy Rd., 2 miles west to center of Dewy Rd. and Owosso Hwy.

Sat. Apr. 6, 1996, 10:30 a.m. Public Listing. Jim & Scott Sykora, Auctioneers 6670 E Juddville Rd., Owosso via M-21 to Baldwin Rd., 2 miles south to Dewy Rd., 2 miles west to center of Dewy Rd. and Owosso Hwy.

**FARM AUCTION WITH FOOD & FARM EQUIPMENT**

**Due to death of son, Thomas R. Semms, and due to my health. 320 Austin Rd., Ovid, MI.**

John & Karen, 6670 E Juddville Rd., Owosso via M-21 to Baldwin Rd., 2 miles south to Dewy Rd., 2 miles west to center of Dewy Rd. and Owosso Hwy.

Sat. Apr. 6, 1996, 10:30 a.m. Public Listing. Jim & Scott Sykora, Auctioneers 6670 E Juddville Rd., Owosso via M-21 to Baldwin Rd., 2 miles south to Dewy Rd., 2 miles west to center of Dewy Rd. and Owosso Hwy.
FARM AUCTION

Having retired from farming the following described machinery and equipment will be sold at a public auction on the farm located 4.5 miles south of Lake County, MI on M-113 two South 2 to M-69 to Townline Rd. (SE Grand Traverse Co.)

Thursday April 12, 1996 10:00am

Daily Auctions

John McMillin

202-349-2395

1986 CHEVROLET TRUCKS

4x4 and chevelle, 360 cui

inch v-8, 5-speed rear end,

29'000GVW, 9600 rear,

front, 18,000 rear, good

point. Excellent condition.

1982; $20995 (322)799-0704

20 WANTED TO BUY

Hudson Construction Services

Place your ad for 6 months, get phone number in red. Place your ad for 1 year, get phone number in red and save $1.00 per ad.

21 Special Events

22 FINANCING

23 Absolute Top Cash

24 WANTED TO BUY

WANTED: BUYING OLDER

WANTED: Motorcycle,

Hudson Construction Services

HEAVY EQUIPMENT

25 Vehicles

26 FARM AUCTION

27 Classified Codes

28 Classified Ad Today!

1-800-732-6532

29 Classified Rates

30 Deadline for next issue is April 5, 1996

31 Michigan Farm News Classified

32 Michigan Farm News Classified

33 Michigan Farm News Classified

34 Michigan Farm News Classified

35 Michigan Farm News Classified

36 Michigan Farm News Classified

37 Michigan Farm News Classified

38 Michigan Farm News Classified

39 Michigan Farm News Classified

40 Michigan Farm News Classified

41 Michigan Farm News Classified

42 Michigan Farm News Classified

43 Michigan Farm News Classified

44 Michigan Farm News Classified

45 Michigan Farm News Classified

46 Michigan Farm News Classified

47 Michigan Farm News Classified

48 Michigan Farm News Classified

49 Michigan Farm News Classified

50 Michigan Farm News Classified

51 Michigan Farm News Classified

52 Michigan Farm News Classified

53 Michigan Farm News Classified

54 Michigan Farm News Classified

55 Michigan Farm News Classified

56 Michigan Farm News Classified

57 Michigan Farm News Classified

58 Michigan Farm News Classified

59 Michigan Farm News Classified

60 Michigan Farm News Classified

61 Michigan Farm News Classified

62 Michigan Farm News Classified

63 Michigan Farm News Classified

64 Michigan Farm News Classified

65 Michigan Farm News Classified

66 Michigan Farm News Classified

67 Michigan Farm News Classified

68 Michigan Farm News Classified

69 Michigan Farm News Classified

70 Michigan Farm News Classified

71 Michigan Farm News Classified

72 Michigan Farm News Classified

73 Michigan Farm News Classified

74 Michigan Farm News Classified

75 Michigan Farm News Classified

76 Michigan Farm News Classified

77 Michigan Farm News Classified

78 Michigan Farm News Classified

79 Michigan Farm News Classified

80 Michigan Farm News Classified

81 Michigan Farm News Classified

82 Michigan Farm News Classified

83 Michigan Farm News Classified

84 Michigan Farm News Classified

85 Michigan Farm News Classified

86 Michigan Farm News Classified

87 Michigan Farm News Classified

88 Michigan Farm News Classified

89 Michigan Farm News Classified

90 Michigan Farm News Classified

91 Michigan Farm News Classified

92 Michigan Farm News Classified

93 Michigan Farm News Classified

94 Michigan Farm News Classified

95 Michigan Farm News Classified

96 Michigan Farm News Classified

97 Michigan Farm News Classified

98 Michigan Farm News Classified

99 Michigan Farm News Classified
normal conditions in the Upper Midwest. And the development and continuation of a weak to moderate La Niña event during the past few months may be at least partially responsible for the generally colder than normal temperatures experienced here in Michigan since late last fall. While La Niña conditions are expected to continue into the summer months, there are few, if any related weather anomalies in the Midwest during the Spring and Summer seasons. The latest extended outlooks for April and the April through June period both call for near equal chances for below-, near-, and above-normal temperature and precipitation. As with most long-term outlooks and their relatively low skill and reliability, the best planning strategy is to expect the historical normals, the upcomingspring season being no exception.

By early April, normal maximum temperatures should range from near 50°F across southern Lower Michigan to the mid-upper 40°F in the northern Lower Peninsula to the low 40s across Upper Michigan. Normal low temperatures at the same time ranged from the low 30°F south to the mid-upper 20°F north.