## Farm Experts: Focus On the Future

WAYNESBURG (Greene County) - Two farm management and economics experts told farmers to focus on the future instead of dwelling on the present. during a workshop held in Waynesburg that was designed to address credit management during the 1990s.

Co-sponsored by Penn State Cooperative Extension and PennWest Farm Credit, featured speakers were Dr. Dave Kohl, professor of agricultural economics at Virginia Tech University and Bill Waters, area farm management extension agent.

Kohl presented an acronym "SWOT," which stands for a method for analyzing the agriculture industry. "SWOT" stands for Strengths, Weaknesses, Opportunines and Threats.

 Strengths — Currently farms have a lower debt outstanding than was seen during the 1970s and 80s. Recent figures indicate that for every dollar of net farm income, there was only \$3 of debt. During the farm crisis, the ratio was closer to \$12 of debt for every dollar of net income. Variable production costs have decreased almost 15

percent during the past decade. Farmers are slowly weaning

themselves from government programs (only \$1 out of every \$5 is from government payouts). New export markets are opening due to the declining value of the dollar.

· Weaknesses — Some farmers are still too dependent on government programs. The energy situation and the Mid-East Crisis are cuase for concern. The General Agreement on Trade and Tariffs (GATT) negotiations could create problems as well.

 Opportunities — New biotechnology and biosciences are expected to open many doors to increased productivity. The fields are not limited to BST and drugs. They key is to learn how to use the technology and gain consumer acceptance of the practices. Valueadded products provide several opportunities as well.

 Threats — Water problems and concerns will remain a threat in many areas. Most farmers will have to deal with volatile, or rapidly changing incomes in the next decades. Many dairy farmers could probably learn a lot from the better

livestock producers, as they have dealth with that problems all along.

Other statistics and information provided by Kohl and Waters gave some guidelines for farmers to consider:

Of the \$1.3 trillion national budget, .8 percent is spent on farm programs.

Personal budgets should include at least six months' of family living expenses in cash or cash equivalents. The average American only has 44 days' worth of cash available.

Livestock producers should have a goal of being at least 10 percent above average in production for the breed, county and state.

Crop farmers should be at or near the capability listed for each soil productivity group on the farm. Comparisons can be made by consulting the Penn State Agronomy Guide.

A financial analysis should be performed to calculate exactly where an operation stands financially. This requires a balance sheet, income statement, statement of cash flows and reconciliation of owner's equity.

Non-farm revenue is important to the farm operation at three oasic times — during the start-up phase;

during a crisis or farm expansion; and when phasing out.

It is helpful is the consulting farm accountant has a farm backround.

About 25 percent of the farm's margin should be invested outside of agriculture to prepare for retirement. Use tax-deferred investments, if possible.

To calculate the farm's margin, a formula has been provided:

Net Farm Income +Non-farm Income

+Depreciation and Interest =Earnings available

=Capacity for interest, principal payments and new investments

-Family Living and income

-Current interest and principal payments and current capital leases

=Margin

Kohl compared a credit risk with a traffic light. In the case of a green light, there is little risk involved. The later one travels through the yellow light, the greater the risk. Traveling through a red light provides the most risk.

In a national study, credit risk comparisons showed that green light farmers made their payments on time, yellow light farmers made their payments from 30 to 90 days late, and red light farmers were in litigation.

The farm's debt to asset ratio whould be less than .4 To calculate the ration, divide the total debt by total assets.

The use of personal credit cards to finance business operations is highly frowned upon.

Since farmers can not stop technology, they should accept it, adopt it and get on with it, or be left behind.

The agriculture industry is based on the law of "survival of the

## Unseen Farm Life

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And while these lung hazards on the farm are associated with microbes, other microbes are apparently very beneficial when directly fed to cattle or when used in the preparation of cattle feeds.

According to Kung, limited research is available on the effects of directly feeding microbes to lactating dairy cattle. The majority of studies have been done on beef cattle.

The talk was listed as "Feeding Probiotics," but Kung said that the name "probiotics" is obsolete and a misnomer. It was coined in the 1970s and was formed from the prefix "pro-," for being in favor of, and from the suffix "-biotic," for life.

The proper name now is "Direct Fed Microbials," or DFMs. It includes bacteria and fungus.

He explained that in the normal state of the digestive tract of the ruminant, there is a balance between beneficial and detrimental microbes. Stress results in an imbalance of the microbes and favors the growth of detrimental microbes within the animal.

The concept behind directly feeding microbes is to supplement the population of beneficial microbes within the animal to help restore a healthy balance and thus result in less illness and poor production by cattle.

Lactobacillus acidophilus is the most common food additive and although the exact level of feeding has yet to be determined, the price for feeding is about 3 cents per to 7 cents per head per day.

Limited research indicates increase of three to four pounds of milk per day.

Feeding of yeast, a fungus, and/or fungal extracts may be of benefit, but research can not prove exactly why. According to Kung, the yeast appears to be more beneficial than the extracts.

According to Kung, the yeast may either benefit the bacteria in the rumen, or may directly aid in breaking down the feed material. It is theorized that the yeast aids in buffering and thereby also aids in digestion. But there is no evidence yet that there is any aid in lower gut digestion.

However, several studies support increased milk yields from the use of yeast.

The cost of feeding yeast is about 3 cents to 7 cents per day per head.

Kung said that his conclusions about feeding DFM are that research is not always positive; there is limited direct evidence of cause and effect; and more research is needed to verify efficacy.

Kung later talked about the use of bacterial innoculants in making corn silage and haylage.

He said that the key to making a top silage is to drop the acidity of the forage down below a 4.5 pH as quickly as possible. This preserves more of the nutrients.

The bacteria types added are also Lactobacillus, just as those fed directly, but the bacteria used to innoculate forage for silage are Lactobacillus plantarum and acidilactici, along with several others not Lactobacillus.

The main reason for using inoculants is to lower the pH and better preserve the feed.

Kung suggested applying innoculants at the blower and at a minimum rate of 100,000 organisms per gram of forage.

However, Kung said the economics benefits of adding an inoculant to corn may be of neglible benefit, since corn silage achieves a low pH rapidly. Haylage on the other hand would probably benefit from the procedure and result in less wasted forage and reduced risk of mold growth.

However, corn silage will still benefit somewhat from having its pH dropped faster.

Another catagory of inoculant is extracted enzymes which are designed ttThe use of enzymes as a silage additive to break down the cellulose in the plant cell walls, seems to aid in feed intake, but research has not shown a corresponding milk increase. Therefore Kung said, it may not be worth the cost of using enzymes since they don't indicate a profitable situation.



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