

# PURDUE AGRICULTURAL ECONOMICS REPORT

DECEMBER 1998

## The Global And National Economic Environment

*Wallace E. Tyner, Professor and Head*

**F**ollowing years of economic stability and growth, the global economy is now undergoing some major upheavals that could have significant impacts on the US economy and American agriculture. Below is a general description of some of the major happenings in the global economy followed by a check list of factors to watch as economic conditions evolve over the next few months.

### Global Economic Factors

**Asia:** The Asian economic crisis has captured headlines over the past few months. Several of the Asian economies, including Japan, South Korea, Thailand, Malaysia, and Indonesia, are in recession. The crisis is mainly a financial crisis caused by weak regulation of the banking industry and a multitude of bad debts made when times were good and growth was the norm. It is somewhat akin in many ways to our own savings and loan crisis, and the Mexico crisis. In both those cases, the economies went into a tailspin but eventually recovered. (Texas and California were in really bad shape in the depth of the S&L crisis.) The same story is likely to play out in Asia. The question is how long it will take, and the answer depends on how long it takes for governments in



the region to effectively deal with the financial root causes.

Asia is a very important export market for the US, amounting to about 40 percent of agricultural exports and 30 percent of all exports. These exports have fallen in 1998 and will fall further in 1999. Growth in the US will be lower, probably at least a half percentage point lower, this year than it would have been without the Asian crisis. However, the Asian crisis alone is not sufficient to bring the US economy into recession. All exports represent 13 percent of our economy, so even if exports to Asia fall by a quarter (up to the present, the fall is less than 10 percent) and don't increase elsewhere, the impact on growth would be about 1 percent. However, it is possible that agricultural commodity imports in Asia may be slow to pick back up because some labor will have shifted back to agricultural production, whereas processed food imports could come back sooner even though the demand is more income elastic.

**Russia:** Another region experiencing tremendous economic difficulty is Russia (and many of the other former Soviet Union countries). The Russian economy has collapsed, and Russia has essentially defaulted on its foreign debt. The impact of the Russian economic



collapse on the US is mainly psychological, because Russia accounts for less than 2 percent of our exports. However, it was apparently, at least in part, the fear of major political changes or even anarchy in Russia that triggered the early September tumble on Wall Street. US banks do not have as much exposure to Russian debt as do German financial institutions.

**United States:** And finally, what about the US? Assuming we continue to grow through the fourth quarter, the current economic expansion will become the second longest in US history. Looking beyond our borders, there is ample cause for concern, but within our own economy, the basic

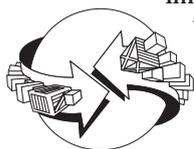


### In This Issue

The Global And National Economic Environment . . . . .	1
Crop Insurance Alternatives Expand . . . . .	4
Announcing Purdue's New Executive MBA in Food and Agricultural Business . . . . .	6
Conservation Easements in Indiana . . . . .	7
New Ag Econ Faculty . . . . .	8
Food System 21: Gearing Up for the New Millennium - Part III. . . . .	8
Grains and Oil Seeds Sector. . . . .	8
Tax Planning in Difficult Times . . . . .	12

fundamentals continue to be strong, albeit not as strong as over the past few years. US growth likely will be lower next year, perhaps around 2 percent or lower, as contrasted with 3.5 percent over the past 12 months. Interest rates likely will remain steady or fall even further, and inflation, and unemployment could increase a bit from their current very low levels.

**Commodity Prices:** Another important factor in world markets is the virtually universal collapse of commodity prices. As we all know, agricultural commodity prices have fallen substantially. But agriculture isn't alone. Oil prices have been as low as \$12/barrel. While US consumers like the resulting low gasoline prices, countries like Mexico, Venezuela, Brazil, and the major OPEC countries have experienced significant drops in export earnings. Without those earnings, the major South



American oil producers are likely headed towards recession. Copper prices have decreased as well, hurting the export earnings of Chile, another South American country. As these South American economies stumble, they also import less, thereby reducing American exports. Many other developing countries depend on primary commodities for their economic growth, and many of these economies are experiencing low or negative growth.

**Europe:** And what about Europe? The European economies have been experiencing moderate growth rates but very high unemployment. In recent months, the high unemployment rates (often 12-20 percent) have begun to ease a bit. European growth prospects for the rest of 1998 and 1999 continue to be strong, but German bank exposure to Russian debt could be a drag on German growth.



**Financial Transfers:** Another source of uncertainty is the role of financial transfers and hedge fund operations in world economic instability. There is no doubt that huge amounts of financial assets are transferred around the globe each day. It is fairly clear that some of the large shifts in financial resources have been instrumental in significant changes in currency values in recent months (e.g., Japan and Malaysia). Clearly, arbitrage operations have some positive benefits in financial markets, but, frankly, we do not understand all the ramifications of the large volume of financial transfers that are occurring today. This uncertainty is one reason some leading economists are calling for some form of capital controls that could restrict capital flows to some extent, and provide better information on financial transfers.

**Key Drivers:** In any depiction of the future, there is always uncertainty. It is important to keep in sight the key drivers of how economic events will unfold. What follows is a check list of things to watch in the months ahead.

1. *Financial restructuring in Japan* - If the Japanese actually begin to implement serious reform of their financial institutions and regulations and to absorb the inevitable financial losses associated with the mountain of bad debt, that could mark the beginning of the end of their crisis. On the other hand, if they continue to postpone the needed changes, the recession will be prolonged.
2. *Devaluation in China* - Up to this point, the Chinese economy has suffered less than most of the other Asian economies. However, China has significant trade relations with its neighbors, and they could put a significant drag on the Chinese economy. China may be tempted to devalue its currency to counter the falls in other Asian currencies. If it does, that could lead to another round of further devaluation of Asian currencies.
3. *Political instability in Russia* - While the direct economic impact of Russia on the US is slight, political instability there would certainly make market players nervous. A further downturn there could adversely impact stock markets worldwide.
4. *European growth* - Economic growth is likely to continue in Europe. However, European banks, particularly German banks, have much greater exposure to losses in Russia and other former Soviet Union countries than do American banks. Also watch for any significant stumbling when the Euro is introduced on January 1, 1999.
5. *Recession in South America* - Several South American countries are already headed towards recession, and others may join. If these economies go into a deep recession, it could have a significant impact on US and European economic growth down the road. Brazil is particularly important,

*Purdue Agricultural Economics Report* is a quarterly newsletter published by the Department of Agricultural Economics, Purdue University.

#### Editor

Gerald A. Harrison

#### Editorial Board

Lee F. Schrader  
Stephen B. Lovejoy  
Christopher A. Hurt  
Philip L. Paarlberg

#### Layout and Design

Cathy Malady

#### Circulation Manager

Patt Sheahan

#### World Wide Web

[www.agecon.purdue.edu/extensio/paer.htm](http://www.agecon.purdue.edu/extensio/paer.htm)

Purdue University  
Cooperative Extension Service,  
West Lafayette, IN

because it is the eighth largest economy in the world.

6. *US consumer confidence* - Our economic growth has been led by strong consumer spending. In fact, consumers are now spending virtually all of their income and saving almost nothing. If, due to economic events in other parts of the world or for other reasons, consumers lose confidence in our future economic growth, they may diminish that strong rate of spending. The confidence index fell in October for the fourth month in a row. While the index is, at present, still quite high, watch for further changes in the months ahead.
7. *Wall Street* - American household wealth has doubled over the past three years due to the rapid rise in our stock markets. That increased wealth has no doubt boosted consumer confidence and induced higher spending. So long as the market stays in the 7,000-8,000 range or higher, consumers may not change their behavior. But if the markets falls much below that, a negative wealth effect on consumer spending could reduce US economic growth.

8. *The Fed* - What will the Federal Reserve Bank do with interest rates? The current Fed has a reputation for fighting inflation as its first priority. However, the Fed has now lowered interest rates twice to stimulate growth and slow the rise of the dollar, which has dampened US exports. The effects of the Fed actions have been mixed. The direct effect is to stimulate the economy. However, an indirect psychological impact could be related to the signal an interest rate reduction sends—that the Fed believes the economic situation is getting worse. The first time the Fed lowered rates, stock markets fell, perhaps because the market thought the reduction was too little or perhaps because of this psychological factor.
9. *Interest rate spreads* - Over the past year, the interest rate difference between government bonds and private sector borrowing has roughly doubled. This change has occurred because domestic and foreign lenders are seeking less risk in their portfolios. Thus, the demand for government bonds has increased and the return on them decreased. If this spread were to diminish, it could mean that lenders were once again willing to take more risk.

10. *Unemployment rates, especially in manufacturing* - Manufacturing unemployment has traditionally been a leading indicator of economic activity. Although overall unemployment rates are relatively low, manufacturing unemployment has been edging up in recent months.
11. *US export levels* - If US exports start falling by large percentages not only to Asia but also to other destinations, that change would drag US economic growth down.
12. *US farm policy* - By our estimates, returns to corn farmers from the current US policy set (transition payments, loan deficiency payments, and market prices) are not very different from what returns would have been under the old 1990 farm bill policy set (deficiency payments, set-asides, and market prices). However, current market prices are low, and there have been calls to revisit agricultural policy. Congressional action this year has led to a temporary boost in payments. But Congress could consider longer term changes next year.

(Several of our faculty contributed ideas to this paper.)

*Continued from page 12.*

election is made, all future CCC loans must be reported as income when received rather than being treated as loans.

Some farmers may have substantial losses on their Schedule Fs, farm income and expenses, for 1998. Negative Schedule F income may be offset by income from other sources such as the sale of cull breeding stock, machinery, and equipment reported on Form 4797 or off-farm employment. However, even with other sources of income included, a farmer's adjusted gross income for taxes can be negative because of the

Schedule F loss. In this situation, a net operating loss (NOL) may exist. A 1998 farm NOL may be carried back either five years and applied against income in 1993 or two years and applied against 1996 income (a three year carryback applies to Presidentially declared disaster areas). Alternatively, a farmer may elect to forgo the carryback and carry the NOL forward up to 20 years into the future. If the farmer wants to carry the NOL forward, the election must be included with the timely filed 1998 tax return.



The amount of tax savings, as well as the time value of money, needs to be considered in determining the best strategy for utilizing the NOL. Some planning opportunities are also possible with income and expense items related to the NOL. Assistance of a tax professional may be helpful in decisions whether to carry back or carry forward an NOL. Farmers with a negative or very low Schedule F income in 1998 may want to use the optional farm method to report their earnings for self-employment taxes to obtain or maintain their disability coverage and other Social Security benefits.

## Crop Insurance Alternatives Expand

*George Patrick, Professor*

**C**rop insurance coverage alternatives available to most Indiana producers have expanded substantially in recent years. Multiple peril crop insurance provides coverage from losses by an insured producer resulting from weather and most factors beyond the individual farmer's control. One type of coverage is based on a producer's actual production history and is commonly referred to as APH coverage. Another type of insurance is also multiple peril coverage but is based on the expected and actual county yields rather than an individual producer's experiences. This is the group risk plan or GRP coverage. Producers are now able to insure revenue, rather than just physical yields. The APH version of revenue insurance is called Crop Revenue Coverage or CRC. The revenue version of the group risk plan is called Group Risk Income Protection (GRIP) and will be available on a pilot basis for Indiana corn and soybeans in 1999.

This article briefly reviews the types of insurance coverages available to Indiana producers. The basic multiple peril crop insurance policies are the same from all private companies because of the federal government's involvement in the reinsurance. However, many companies have special, additional cost options available. Producers should contact a crop insurance agent for specific policy information and premium rates for their individual situation.

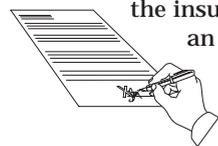
### Actual Production History (APH)

Coverage is available for most of the major commodities produced in Indiana. A producer may select a coverage from 50 to 75 percent of the actual production history (APH) of the farm and an indemnity price election of 60 to 100 percent of the Federal Crop Insurance Corporation expected market price. For corn, soybeans, and wheat, the spring expected price is based on the

Chicago Board of Trade futures market price of the commodity before planting. The minimum level of coverage, Catastrophic Risk Protection (CAT coverage), is based on 50 percent of the APH yield, and 60 percent of the expected price is available for an administrative fee. Higher levels of coverage involve additional premiums and provide protection against poor quality, late planting, replanting costs, and prevented planting.

The yield guarantee is the APH yield times the level of coverage, times the number of acres insured, and times the insured's share of production. The APH yield is determined from the producer's production records for a minimum of 4, and a maximum of 10 consecutive crop years. For producers with less than 4 years of actual yields, transitional or "T" yields are used. Producers without yield records are limited to 65 percent of the T yield as their APH yield for the first year the producer is insured.

The basic insurance unit is all of the insurable acreage of an insured crop in a county in which the producer has a 100 percent share or



which is owned by one entity and operated by another entity on a share basis. Thus, a farmer owning 240 acres and cash renting 600 acres from landowners would have one basic unit. In contrast, a farmer owning 240 acres and share leasing land from three different landowners would have four basic units. However, if adequate records are available, the cash renting farmer can generally insure on an optional unit basis. Premiums and indemnities would be calculated on the unit basis. An indemnity (loss payment) would be received if the harvested and appraised production on the unit was less than the guarantee level. For example, if a farmer with an APH yield of 120 bushels per acre has coverage at the 65 percent level,

an indemnity would be paid if production was below 78 bushels per acre. The price used in the indemnity calculation would be the price elected by the producer when obtaining insurance coverage.

The APH premium is subsidized by the federal government. The size of the subsidy varies with the level of coverage. The subsidy is at its maximum for the 65 percent yield level and 100 percent price election. The producer pays the full insurance cost of the increase in coverage above the 65 percent of yield level.

An 85 percent yield coverage level is available on a pilot basis for corn and soybeans in some Indiana counties for 1999. The counties in which producers can obtain the higher level of coverage are: Benton, Carroll, Cass, Clinton, Fountain, Jasper, Montgomery, Newton, Pulaski, Tippecanoe, Warren, and White.

### Crop Revenue Coverage (CRC)

The CRC insurance builds on the yield protection of APH coverage and protects against price losses for corn, soybeans, and wheat in Indiana. However, CRC does involve a higher insurance premium for producers. Under CRC, the harvest time futures prices are used to establish the value of the crop. For corn, 95 percent of the average daily price of the Chicago Board of Trade futures contract for December during November is used. For soybeans, it is 95 percent of average October daily price of the Chicago Board of Trade soybean contract for November delivery. If these prices are higher than the spring expected market price discussed under the APH coverage, the revenue guarantee is recalculated under the higher price. The price actually received by a farmer has no effect in the revenue calculations for CRC.

For example, let's assume a producer has a 120 bushel per acre APH yield for corn and selects coverage at the 65 percent level. The spring expected price for corn is \$2.40. Thus, the revenue guarantee level

would be 120 bushels, times 65 percent or 78 bushels, times \$2.40 or \$187.20 per acre. If the producer had a production of 70 bushels per acre and the harvest time price was \$2.40, then the producer would have a revenue of \$168 per acre and would receive an indemnity of \$19.20 per acre. This is the same as with APH coverage. However, assume that the farmer had a yield of 80 bushels per acre and the harvest time price was \$2.00 per bushel. In this case, the farmer would have revenue of \$160 per acre. With CRC, this would trigger an indemnity of \$27.40 per acre. If the farmer had APH coverage, no indemnity would have been paid because the yield was not below the guarantee level. In another situation, assume the farmer had a yield of 70 bushels per acre and the harvest price was \$2.80 per bushel. In this case, the revenue would be \$196, but the revenue guarantee level would be recalculated using the higher, \$2.80 harvest time price. The 78 bushel guarantee level at \$2.80 would be a \$218.40 revenue guarantee. Thus, the producer would receive an indemnity of \$22.40 per acre, the difference between the guaranteed \$218.40 revenue and the \$196 revenue obtained.

#### Group Risk Plan (GRP)

The group risk plan (GRP) insurance is based on the expected county yield rather than the yields of individual farms. A loss occurs when the actual county yield is less than the yield level coverage selected by the producer. Thus, an individual producer may suffer a loss in production and collect no indemnity because the actual county yield is near normal. Conversely, a producer may have normal yields and collect an indemnity if the county yield is low. GRP is currently available only for corn, soybeans, and wheat in Indiana.

The expected county yield is based on historical county yield data collected by the National Agricultural Statistics Service and adjusted for yield trend. A producer may select one of five coverage levels (70, 75, 80, 85, or 90 percent) of the expected

county yield. For example, if the expected county yield is 135 bushels per acre, the “trigger yield” would range from 94.5 bushels per acre at the 70 percent level to 121.5 at the 90 percent level. If a producer

and soybean crops. GRIP, like GRP, is based on expected and actual county revenue, rather than the experiences of an individual producer.

Only limited information on

---

***“Producers’ crop insurance options have expanded significantly with respect to type and level of coverage.”***

---

insured at the 70 percent level, an indemnity would be paid if the county yield dropped below 94.5 bushels per acre, while a yield below 121.5 bushels per acre would trigger an indemnity if the farmer had insured at the 90 percent level. The dollar level of coverage can be the equivalent of up to 150 percent of the expected county yield. This allows a producers with yields above the county average yield to protect this higher level of production. For example, if the county yield was 120 bushels per acre and the price was \$2.50 per bushel, the maximum coverage level which could be purchased would be \$450 per acre.

Producers selecting GRP coverage do not have to provide production history or evidence of loss because indemnity payments are based on county yields. However, GRP does not provide prevented planting, late planting, or replanting coverage.

GRP premium rates are lower than APH insurance and require less paperwork. GRP may be attractive to producers whose ups and downs in yields track the county’s ups and downs in yields closely. However, it is possible for a producer to have a loss and not receive an indemnity payment under GRP.

#### Group Risk Income Protection (GRIP)

The group risk income protection (GRIP) insurance is being offered on a pilot basis in Indiana for 1999 corn

and soybean crops. GRIP is currently available. It is likely that the revenue coverage will be based on the spring expected harvest price. Thus, if the expected harvest price of corn is \$2.50 per bushel and the expected county yield is 135 bushels per acre, the expected county revenue would be \$337.50 per acre. If a producer insured at the 90 percent level and actual county revenue dropped below \$303.75 because of low yields and/or low prices, then the producer would receive an indemnity. Producers need to understand the specifics of this pilot program coverage before purchasing it.

#### Crop Insurance Decisions

Producers’ crop insurance options have expanded significantly with respect to type and level of coverage.



Protection can be obtained for physical losses based on a

producer’s historical and actual yields. Alternatively, protection can be based on county experiences. Revenue coverage is also available for both types of policies. There are often many options available even within a specific type of program. Consultation with a crop insurance agent to determine available coverage options and premium rates for one’s specific situation is an important step in informed decision making.

## Announcing Purdue's New Executive MBA in Food and Agricultural Business

*Jay T. Akridge, Program Director*

**L**eading food and agribusiness enterprises into the next millennium will place unparalleled demands on the capabilities of tomorrow's managers. The globalization of markets, explosion of new technology, fragmenting demands of consumers, rapidly evolving role of governments, and intense competitive pressures combine to create a food and agribusiness marketplace which rewards only the visionary and innovative.

In such an increasingly competitive global food system, strategic alliances have become an important strategy for success. At Purdue University, a strategic alliance between the Krannert Graduate School of Management and the School of Agriculture has led to the development of the first Executive MBA (EMBA) in food and agricultural business in the U.S. This is a bold, innovative graduate management program developed to prepare future leaders as they assume the challenges of directing their organizations to success in the food system of the 21<sup>st</sup> century. The EMBA offers an innovative alternative to the traditional part-time executive MBA in its focus on the unique management challenges of the food and agricultural marketplace, and the use of distance education technology which allows participants to pursue their degree while maintaining on-going responsibilities in their respective organizations. The first class in this new program will begin in August 1999, and applications are now being accepted.

The stronger the partners, the stronger the alliance and this new degree clearly brings resources from two of the best to students in the program. *Business Week* magazine recently named the Krannert School one of the top 25 business schools in the U.S., and Purdue's School of Agriculture is widely recognized as one of the best in the world.

This fully accredited EMBA program spans a two-year period, beginning with an orientation session in August of the first year. The program is distinctive in that the on-campus instruction is concentrated into a one-week orientation session plus four, two-week residency sessions spread over the two years. The orientation session and three of the two-week residency sessions are held on the Purdue University campus in West Lafayette, Indiana. The fourth residency session is held on the campus of an international partner institution. This schedule makes it possible for participants to be drawn from a wide geographical area, minimizes conflicts with normal job responsibilities, and eliminates the problem of interruptions in the program due to job transfers. The international residency session is an exciting dimension, and reflects the international perspective running throughout the program.

This program is a "cohort" program—that is, all students in each class enter together, take the common set of courses together, and graduate together. Due to its expected national and international, rather than local, student population, the program will provide an unusually rich environment for interaction among the participants. Students will develop important relationships with other future leaders from across the food system, a key benefit of the program.

Participants in the EMBA program will be food and agricultural business firm managers who want to earn the MBA degree while continuing their employment. Three core groups will be represented in the program: agribusiness managers, food firm managers, and commercial agricultural producers. The program

will offer numerous benefits to participants including helping to prepare them to assume greater general management and leadership responsibility and providing insights into the dynamic economic, social, and technological, forces which shape corporate decision-making in the world food business.

By sponsoring participants in this program, food and agribusiness organizations make a major commitment to high potential individuals in their firm. Sponsorship of a manager to the program is a powerful investment in the company's future, and a fundamental statement to that individual about the company's interest and commitment to their career development. Other benefits for the sponsoring company include exposing participants to the varied functional areas of management and to the many facets of the food system, helping them attain a broader perspective of the organization and its competitive environment. In addition, the program will facilitate the exchange of experiences and ideas among the participants, bringing fresh ideas to the sponsoring organization.

The EMBA in food and agricultural business is a state-of-the-art program of advanced study in management. A large portion of the coursework will be delivered using distance-learning technology. The emphasis on an electronic instructional linkage between the University and the program participants will allow participants to complete the program with minimal time away from the job. In addition, technological advances in distance learning technologies have made possible the creation of a virtual classroom which has proven effective in capturing many of the elements of face-to-face contact. The design of the program is consistent with the standards of the International Association for Management Education



(AACSB), and the program is fully accredited by that national accrediting body for management master's programs.

The program is built around a set of core courses in the functional areas of management including marketing, finance and accounting, human resource management and organizational behavior, production and operations management, and strategy. Each of these courses will be oriented to the food and agricultural markets through selection of topical material and use of food and agricultural business case studies. At the same time, considerable emphasis in these management courses will be given to other, non-food and agricultural firms and industries to insure that participants have the opportunity to learn from situations outside the food and agricultural markets.

These core management courses will be complemented by a set of

courses focusing on the economics of the business environment facing food and agribusiness firms: international trade, government policy and regulation, and market structure and coordination. This set of courses will take participants deeply into conceptual material and issues that have both immediate and longer-term relevance for doing business in a global food and agribusiness market.



Classes in the EMBA in food and agricultural business will be taught by faculty of the School of Agriculture, faculty of the Krannert Graduate School of Management, and by selected faculty from partner universities in Europe and North America. Full technical support is provided for both off-campus sessions and residency sessions. The Distance Technology Staff will have extended service hours and are equipped to allow questions to be addressed

quickly. On-line help resources will be available for off-hours assistance. On campus, the Program Manager monitors all dimensions of the residency experience so that the value of these residency sessions is maximized. Similar support will be provided for the international residency.

We would appreciate the opportunity to tell you more about this exciting new program. Additional information can be obtained by contacting: Dr. Jay Akridge, Program Director, or Barbara Sales, Program Manager, Executive MBA in Food and Agricultural Business; Purdue University; 1145 Krannert, Suite 554; West Lafayette, IN 47907-1145; Phone: 765.494.4262; Fax: 765.496.1224; e-mail: [sales@agecon.purdue.edu](mailto:sales@agecon.purdue.edu); URL: <http://www.emba-agbus.purdue.edu>.

## Conservation Easements in Indiana

*Gerald A. Harrison, Professor\**

**E**asements are a sharing of certain rights in the bundle of rights that constitutes full ownership in real estate. Landowners may grant easements in real estate to accommodate a neighbor. Easements may arise out of the law where a roadway is necessary to reach a landlocked parcel. Utility companies acquire easements to deliver services essential to the community, for example, pipelines for water and gas, and power lines and cables for electricity and communications.

### What is a Conservation Easement?

A conservation easement is a promise not to make or permit changes in the property, but instead to leave land as it is for its value as open space, as farmland, for recreation, or

for scenic, natural or historic value. This is a granting of rights associated with adding improvements to property or otherwise changing its use or character—it is a conservation restriction.

Conservation easements are significant alternatives in the management of development in rural or “undeveloped” areas. They are recorded deed restrictions. (A sample form for a deed of a conservation easement may be obtained by contacting the author or the American Farmland Trust.) Landowners may gift or sell conservation easement to an appropriate private or public agency (e.g., a land trust or a park service). Individuals may gift part and sell part (bargain sale) of a conservation easement to make an arrangement feasible or practical from a financial planning point of view.

Government agencies and private land trusts may purchase full title to

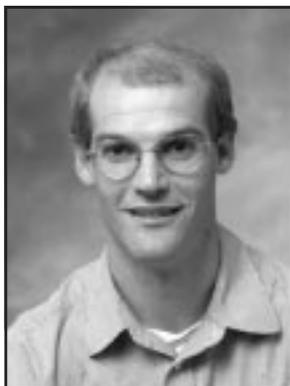
property to provide scenic, recreational, and other land-based benefits to the public. However, to manage development by limiting acquisitions to easements reduces the cost of attaining policy objectives. Cost savings adds to the trend toward acquiring conservation easements to attain real estate development rights. Landowners may trade a conservation easement for replacement property to avoid recognizing taxable income under the Internal Revenue Code's like-kind exchange rules.

To satisfy the federal income tax charitable deduction requirements, and for public policy reasons, “qualified” conservation easements must be established to last forever. Restrictions on transfers of real estate that last forever are contrary to common law. Indiana has adopted the Uniform Conservation Easement Act (See IC 32-5-2.6-1 to -7), which

\* Gerald A. Harrison, *Extension Economist*, may be reached by phone: 765-494-4216; toll free: 1-888-398-4636; E-mail: [harrison@agecon.purdue.edu](mailto:harrison@agecon.purdue.edu).

## New Ag Econ Faculty

**C**hanning Arndt joined the faculty at Purdue University in January 1998. His research interests include international trade, production, and international development. He has worked in a variety of areas including the implications of rapid growth or stagnation in China for the US, the implications of taxes or bans on herbicides for US farmers, and the implications of reduced trade barriers for corn in Morocco. He has substantial experience in Morocco and Mozambique. He speaks fluent French.



Channing Arndt

## Food System 21: Gearing Up for the New Millennium - Part III

### Introduction

**T**he U.S. agricultural production and food distribution industry is currently in the midst of major structural changes. To assist in understanding the implications of these changes and the future of the industry, faculty in the School of Agriculture at Purdue University in collaboration with industry representatives undertook a study to assess the future of the food production, processing, and distribution system. The results of this analysis are reported in detail in *Food System 21: Gearing Up for the New Millennium*—winner of a Gold



Award for editing from the Agricultural Communicators in Education. Congratulations to Laura Hoelshcer, PhD, Editor, Agricultural Communications Service, for this accomplishment.

In this issue will provide a summary of a key chapter of that book, the grains and oil seeds sector. This summary presents the "Key Questions & Responses" section, of this chapter which provides a synopsis of

the most important issues discussed in that chapter of the book.

You may or may not agree with our analysis. We encourage you to read the complete analysis in *Food System 21*:

*Gearing Up for the New Millennium* which is available for \$29.95 from:  
**Agricultural Communication Service  
 Media Distribution Center  
 301 South 2<sup>nd</sup> Street  
 Lafayette, IN 47901-1232  
 1-888-EXT-INFO  
 FAX (765)496-1540**

### Grains and Oil Seeds Sector

*Craig Dobbins, Howard Doster, John Lee, Jess Lowenberg-DeBoer, George Patrick, and William Uhrig*

#### > Are there any forces that will slow the growth in farm size?

No. Most of the forces are encouraging growth. The cost reductions from economies of size continue to be a driving force. Further increases in farm size can be expected with existing technologies.

Information technologies will allow some managers' span of control

to be more easily extended. Using this technology will require improved data analysis skills. These skills will be developed by farmers with the assistance of education programs offered by both the public and private sectors. Developing and utilizing these skills will provide new methods of lowering production costs. Production technologies will continue to increase in complexity, and linkages to sellers of inputs and purchasers of products will become more information intensive. Those farms large enough to allow for specialized management will be able to evaluate and respond more quickly to changes.

There will be an increasing number of regulations designed to reduce the environmental impacts of production agriculture. As new regulations are developed, larger farms will be better able to develop methods of complying that have the smallest impact on costs. This will be even more important as farms internalize more of these costs.

#### > Will small and medium-sized commercial grain farms survive?

Established small and moderate-sized commercial farms that possess a land base with little or no debt, can utilize used machinery, and continue to achieve market access, will be able to survive for several years as an independent operation. There will continue to be a large number of small lifestyle farms where off-farm income will be critical to survival. Small and medium-sized farms will be at an increasing disadvantage in purchasing inputs, selling products, and obtaining new technologies. They will also be at a disadvantage in managing the large amounts of complex information needed to operate a farm.

Some small and medium-sized commercial farms will develop and thrive in niche markets, but they will be exceptions. Those that are successful in developing and filling a niche market will need to develop special merchandising skills. They will need to closely monitor changes

in their customers' preferences. It will be important for producers in niche markets to monitor potential competitors. Niche markets are small and can be easily swamped by an influx of producers.

➤ **Will more variable farm prices lead to new policies to reduce price risk?**

With the changes in U.S. commodity price support policies and the elimination of publicly held stocks, some anticipate that the prices for grains and oil seeds will be more variable. While it is likely that the private sector will carry some increased stocks, private companies will not carry these stocks for as long as the government or in the quantity that the government was willing to carry. While the stability of U.S. prices is influenced by domestic policy, it is also influenced by the actions of other countries. If countries important to world trade attempt to isolate their domestic markets from the variations of the world market, these policies could lead to more variation in U.S. prices.

While there are several unknowns, the variability of domestic agricultural commodity prices is not expected to increase substantially. Price variability is not expected to be the major issue leading to the return of commodity programs of the past. Rather, it is expected that a public-private partnership will evolve in which new risk management tools will be developed. Through the provision of risk management tools, such as revenue insurance and other new products, private companies will provide farmers various methods for insuring risk. The federal government may provide some assistance in providing reduced rates for these new products, but will not be directly involved.

There will be periods of excess supply and low prices. Without government programs in place to remove these excess supplies, prices could be expected to drop more than they otherwise would. Acreage adjustments to low prices are more

likely to occur in the fringes of the Midwest. These adjustments are expected to occur fairly quickly. There will also be periods of short supply. Without government stocks to dampen price increases, prices are expected to increase more than they otherwise would. But, again adjustments are expected to be quick.

However, agricultural policy issues will need to be revisited in 2002 when the current authorization expires. Events at that time will have a major impact on the changes that may be made in agriculture policy.

➤ **How will the management requirements change?**

There will be more pressure for better general management of human resources, finances, and relationships (relationships with input suppliers, output purchasers, and the general public). Since managers of larger farms will depend less on direct observation of situations to identify problems, data analysis and interpretation will become important skills. The trend toward more complex and information-intensive production practices will require better information management skills. Successful farmers will need to become better general managers. Efficient production will still be critical, but it will be possible to obtain these skills from service providers and consultants.

➤ **What changes in the ownership of land and farm businesses will occur?**

The capital requirements of commercial farms will continue to grow. One method of reducing the amount of equity required is to lease assets rather than purchase them. This has been a popular method of gaining control of land. As farm size grows, this will become more common in machinery. Leases will allow operators to place limited capital in items that provide a greater rate of return than can be achieved from machinery and land investments. This will be part of a larger trend towards the

separation of ownership, production labor, and management.

➤ **How will increased environmental regulations affect production?**

Efforts will continue to reduce off-site environmental impacts of production agriculture. Erosion control will continue to be an important effort to improve surface water quality. This effort's watershed focus may affect individual property rights. There will be more variation in what an individual farmer will need to do in order to comply with regulations. The establishment of filter strips and other buffer zones will be important. These differences will be reflected in land values. There will be a greater difference between land with low and high erosion potential.

While public policy, through vehicles such as the Farm Bill, will provide some money to support the implementation of desired practices, more of the cost of complying will be borne by producers. Some of these costs will be for specific changes needed to meet the requirements. Others will be in the form of new features on machinery. The cost of compliance will be more difficult for smaller units which have a smaller volume of output over which to spread the costs.

➤ **What will be the return from farming?**

The small percentage of farm operators (20-25%) who develop the interpersonal skills, financial management skills, merchandising skills, data analysis skills, and production skills to be above average operators in the years ahead will receive returns that are competitive with those in other industries if demand remains strong. But there will continue to be a large number of farm operators that receive a return lower than could be received elsewhere. If demand weakens, land and labor resources will be devalued to reestablish competitive returns.



While small and moderate-sized independent operations with a high equity position will have strong staying power, they will not have access to the discounts and premiums available to larger producers. Off-farm income will be critical to the survival of these farms.

➤ **Is now the time to buy land?**

If you're an investor, the answer is probably no. The market price of land has recently increased rapidly in



response to an increased farm price for grains and oil seeds. Some have attributed this to concerns about possible worldwide food shortages. These concerns are likely overstated. If you're an investor, this is likely a good time to evaluate the profitability of alternative investments. While land likely will not increase as much in the near future as in the recent past, it may still be a reasonable storage of value. The land investment also provides a method for diversifying the investment portfolio.

If you are a farmer, if you have the money, and if it is a purchase that fits into the future direction of the business, you will probably bid aggressively to buy the land even if it is not a good investment at the current prices. But remember that land is an illiquid asset that is difficult to sell when expected profitability declines. When making a land purchase it will be important to have the financial strength to withstand periods of low crop prices and/or declining land values.

*Continued from page 7.*

provides legality for a conservation easement in Indiana. The Act also permits assignment of conservation easements between agencies and entities. This provision permits land trusts and similar charitable institutions to acquire and sell conservation easements to state or federal agencies. A sale of easements may be an important source of capital and operating funds for land trusts.

**Conservation Purpose**

Generally, for the taxpayer's qualified conservation easement (QCE) to obtain the income and transfer tax deductions, the agency that acquires a conservation easement must have a charitable or similar standing under the Internal Revenue Code and Treasury Regulations. It is essential that the acquisition agency have a "conservation purpose." According to the Regulations a conservation purpose is satisfied by one or more of the following:

- the preservation of land areas for outdoor recreation by, or the education of, the general public,
- the protection of a natural habitat of fish, wildlife, plants, or similar ecosystem,
- the preservation of open space (including for farming and forestry) where such preservation is:

- for the scenic enjoyment of the general public, or
  - pursuant to a clearly delineated federal, state or local governmental conservation policy, and will yield a significant public benefit, or
- the preservation of a historically important land area or a certified historic structure.

**Tax Benefits from the Gifts of a QCE**

**Potential for Income Tax Savings:** Gifts of all or part of a QCE provide a charitable income tax deduction to the contributing taxpayer. An annual deduction may be limited to 30% of the donor's adjusted gross income. The amount, not deductible in the year of the easement gift, is deductible in each of the next five years, but subject to the 30% limitation.

For example, if the fair market value of a donated QCE is \$200,000, and the taxpayer has an adjusted gross income of \$80,000, the charitable deduction for the year of the transfer is \$24,000 (30% x \$80,000). This leaves \$176,000 (\$200,000 - \$24,000) to carryover. A lifetime gift of a QCE does provide substantial income tax savings, however at the \$80,000 level of adjusted gross income, only \$144,000 of the \$200,000 would be deductible over a six-year period.

If the taxpayer is in a 28% income tax bracket, a \$24,000 reduction in taxable income provides an income tax savings of \$6,720 (.28 x \$24,000). If that were the savings in each of six years, the tax savings would total more than \$40,000. Individuals in a higher tax bracket (say 31%) would realize a greater savings. A reduction in the Indiana income tax adds to the savings. Taxpayers might structure gifts over many years to overcome the annual limitation on their charitable deduction.

**Property Tax Savings:** Since the value of the remaining real estate is reduced after granting a conservation easement, a property tax savings may result. However, in the case of farmland in Indiana, the assessment for real estate tax is based on agricultural use and/or soil productivity, and not on the fair market value of the property. Thus, the granting of a conservation easement on farmland in Indiana may not have a big impact on the current property tax assessment.

**Federal Gift and Estate Tax Savings:** There may be an additional benefit from a conservation easement due to the reduction of the federal estate tax value in a decedent's estate. Federal unified gift and estate transfer tax is based on the fair market value at the time of the lifetime gift or at death. Amounts that qualify as charitable transfers are exempt from federal gift or estate transfer tax. Thus, land in a decedent's estate that has been reduced in value by the value of a

conservation easement has less exposure to the federal gift and estate tax. Whether there is an actual estate tax savings for a decedent's estate depends upon the taxable value of the estate, and whether other features in the estate tax law will allow for avoiding the estate tax. The Indiana Inheritance tax may also be reduced by the granting of conservation easement since the inheritance tax is based on the value of interests passing from a decedent to individual heirs.

**Estate Tax Exclusion for QCEs:** There is a new (1998) federal estate tax provision for excluding land value from a decedent's estate if the land is subject to a qualified conservation easement (QCE). When a QCE meets the requirements of the new law, as much as 40% (or the applicable percentage) of the land value as of the date of death may be excluded from the federal estate tax estate. This exclusion from the value of land is after the value of the conservation easement is subtracted from the fair market value of the land.

The maximum amount that can be excluded is the lesser of the "applicable percentage" (40% max.) or the "exclusion limit:" \$100,000 in 1998, \$200,000 in 1999, \$300,000 in 2000, \$400,000 in 2001 and \$500,000 in 2002 and thereafter.

The "applicable percentage" is a maximum of 40%, but it is reduced by two percentage points for each percentage point (or fraction thereof) by which the value of the qualified conservation easement is less than 30% of the value of the land. For this purpose, the value of the land is determined without regard to the value of the easement, and it is reduced by the value of any retained development rights.

To illustrate the above rule, consider a landowner who died and a qualified conservation easement was granted on his land. The fair market value of the land on the date death before considering the easement is \$900,000. The value of the QCE is \$200,000. First of all, the \$200,000 of the QCE is fully deductible from the estate tax estate. The \$200,000 value

of the QCE is 22.22% of the value of the property without the QCE. Since the rule requires a reduction of applicable percentage by 16% [twice the difference between 30% and 22%], that leaves an applicable percentage of 24% (40 - 16). The exclusion is \$48,000 (24% x \$200,000), and for estate tax purposes this land has a value of \$652,000 (\$900,000 - \$200,000 - \$48,000).

An election under this exclusion is irrevocable. The income tax basis for the land that benefits from this new exclusion is reduced by the amount of the allowable exclusion. If the election to grant a conservation easement is done in an estate, there is no income tax deduction for the estate or the heirs.

However, a **location rule** limits the use of this new exclusion. For land subject to a qualified conservation easement to qualify for this exclusion, the land, at the date of the owner's death must be located (1) in or within 25 miles of a metropolitan area as defined by the Office of Management and Budget, or (2) within 25 miles of a national park or wilderness area, or (3) within 10 miles of an urban national forest.

Other features in the federal estate tax law providing estate tax relief include: the applicable exclusion amount of \$625,000 in 1998; special use valuation of farmland (which may remove up to \$750,000 in value of land from an estate); and the new family-owned business interest deduction (which may allow a tax deduction of up to \$675,000 from a decedent's federal estate tax estate). These three features permit an individual who is in a farming business (or whose family is in farming in the case of the retired individual) to avoid the federal estate tax on up to \$2.05 million. Also, the tax law permits the granting of a conservation easement on the land that enjoys the benefit of a special use valuation.

To the extent an individual has an estate tax concern, provisions in the law that provide tax avoidance may help keep land in its current use.

## Summary & Conclusion

Conservation easements are an important tool for managing real estate development. Indiana law was modified to permit the establishment of conservation easements to last forever. The federal tax law provides that gifts for a "conservation purpose" of "qualified real property interests" to a "qualified organization" are deductible for federal income, and gift and estate tax purposes. Another feature in the tax law allows for an additional exclusion of land value from an estate tax estate under limited circumstances.

Other features in the federal tax law, such as special use valuation of farmland and the new family owned business interest deduction are available for avoiding substantial amounts of estate tax. Further, the applicable exclusion amount available to all decedents increases from \$625,000 in 1998 to \$1 million in 2006. These features also work to keep farm land in an agricultural use.

Land trusts and other entities exist in Indiana for acquiring and holding conservation easements. Though land trusts exist for the purpose of preserving farmland, they may or may not accept an easement without additional money provided to help protect the easement.

Further, there may be few individuals willing to make substantial gifts of conservation easements. However, increased advantages, such as the new estate tax exclusion, and education about the advantages of existing tax provisions may persuade individuals and heirs to contribute conservation easements.

In a few states, have programs for the purchase and transfer of conservation easements. That is, where a community decides to protect agricultural and open spaces, there is a systematic process for acquiring development rights and applying these rights where development is permitted. Local governments in Indiana may wish to become more involved in the management of local growth by establishing a program for the transfer of development rights.



## Tax Planning in Difficult Times

*George F. Patrick, Professor*

**L**ow commodity prices do NOT necessarily imply low taxable incomes for Corn Belt farmers in 1998. For farmers using the cash accounting method, it is when an input is paid for, rather than when the input is used, that determines when that cost is deductible for tax purposes. Receipts are reported as income the year in which they are received. Simply assuming that 1998 will be a low taxable income year may lead to poor tax planning. Check your tax situation while there is still time to make potentially money-saving adjustments.

### High Incomes in 1998

Many farmers sold their 1997 crop production after January 1, 1998. Some farmers may have sold commodities in 1997, but deferred payment into 1998. In both cases, these sales would be counted as income in 1998. Many farmers will also take the loan deficiency payments (LDP) on their 1998 corn and soybean production near the end of harvest and, the LDPs will be 1998 income. If farmers exercise their option to take

50% of their 1999 production flexibility payments (PFP) in 1998, these payments will be 1998 income, together with the 1998 production flexibility payments received early in 1998. To top-off what may be an already high income year for some, the 1998 Market Loss Assistance Payment (MLAP), which is about half of the 1998 PFP, was paid in November 1998.



Many farmers are familiar with techniques to reduce taxable income in a high income year. First of all, the advance 1999 PFP payment may be delayed and received totally in 1999. Considering the surprise MLDA payment which came automatically in 1998, this may be appropriate tax planning. Delaying sales, using deferred payment contracts, prepaying expenses, purchasing machinery and equipment, and using Section 179 expensing election are some of the common techniques. In a low-income year, many of these techniques can be reversed to improve a farmer's tax situation.

### Low Income for 1998

For a married couple, there is no federal income tax on the first \$12,500 of 1998 income. This increases to \$17,900 for a family of four and, depending on their situation, the family may qualify for the new child tax credit and earned income tax credit. Thus, if the year-to-date review indicates that net income will be less than this "tax-free" amount, attempts should be made to increase income for tax purposes. Delaying purchases or payment for items already purchased until after January 1, 1999 will reduce expenses for 1998. For assets acquired in 1998, slow methods of depreciation may be elected; however, no changes are possible for assets already on the depreciation schedule. Selling some commodities, culling livestock, and taking the advance 1999 PFP before the end of the year would increase 1998 receipts. Farmers who take Commodity Credit Corporation (CCC) loans on their production in 1998 may elect to report the loans as income this year. However, once this

*Continued, page 3.*

*Purdue University is an affirmative action/equal opportunity institution.*



Gerald A. Harrison  
Department of Agricultural Economics  
1145 Krannert Building, Room 630  
West Lafayette, IN 47907-1145

Non-profit Organization  
U.S. Postage  
PAID  
Purdue University