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INSURANCE AND OTHER STRATEGIES FOR THE MANAGEMENT OF FARM RISK

Merritt Sprague

The ability of many farmers to bear risk is diminished as a result of eroding land values and deteriorating balance sheets. Asset-to-debt ratios have dropped sharply during the 1980s.

The availability of operating credit is generally determined by repayment capability. Cash flow projections are an integral part of the analysis used by lenders to qualify for credit. Any thing that adversely affects cash flow has an impact on the soundness of an operating loan. Crop production losses, or lower than expected market prices, have an immediate and dramatic negative effect on cash flow.

The management of risks, which have the potential to create financial hardships or failure for a farm business operation, demands an understanding of the various strategies and methods available to the farm manager. Financial success or failure depends on the wise use of the most appropriate tools available to reduce risk. The fact that operating margins are narrow in relation to historical averages accentuates the problem confronting producers. Profit and loss projections turn into disasters when prices turn down or unit costs rise. A unit cost increase will always occur when production fails to reach expectations. Most producers require a risk management plan that includes a combination of several risk reducing techniques.

The following practices are often used by producers to reduce production risks in their operation:

- 1) Diversification of enterprises - produce several different crops with varying planting and harvesting periods. Combine animal or poultry production with crop enterprises. (Harder to specialize; possible reduction in efficiency).
- 2) Disperse the operation - physical separation by distance reduces crop production risks. (Perhaps at the cost of reduced efficiency...Too much road time).
- 3) Maintain surplus capacity in machinery, equipment and labor. Such a practice increases the likelihood of more timely operations, thus higher yields. (This practice increases fixed expenses and reduces efficiency).

Other techniques used to reduce price related risks include:

- 1) Construction of storage for non-perishable commodities which extends the time span with in which a pricing decision must be made. (There is added risk of

loss during the storage period and added costs to maintain quality.)

- 2) Marketing plans which provide for a fixed quantity to be sold at several different times during the market year. The weekly milk check...A truck load of hogs every month...A sixth of the soybean crop on the 15th of every other month. (May be the only practical plan in the case of perishable commodities but it is likely to yield less than average returns because prices are typically in the lower third of an annual range for two-thirds of the time.)
- 3) Forward contracting of the cash commodity when prices will result in a profit if production is normal. (This method is preferable to selling at harvest, when the note is due, or when the wife needs a new refrigerator.)
- 4) Participate in government farm programs to stabilize prices. (Generally by reducing supplies and promoting orderly marketing.)

Until recently, few producers have gone beyond these time proven techniques for reducing price and production risks. A few successful farm business managers have already discovered how to effectively manage the risks inherent in production agriculture. Others are beginning to discover techniques which reduce the effect of unfavorable circumstances beyond their control.

Commodity Futures

Several methods of price insurance are available to producers. The commodity futures contract can be used by a hedger to establish a price floor for expected production. Futures contracts are traded on the most widely produced commodities, but are generally unavailable to the producers of vegetables, fruits, nuts, and many specialty crops.

A producer who chooses to hedge a portion of his soybean crop in futures may order his commodity broker to sell a 5,000 bushel contract of soybeans for November delivery at an acceptable price sometime after planting in May. The change in value of the futures contract will be about equal and opposite to the change in value of the cash commodity if the basis is steady.

Basis is the difference in the cash price commodity at a specified location and the futures price. Basis is generally expressed in dollars per unit and primarily reflects shipping costs. As general rule, commodities should be sold on the narrowest possible basis

to maximize net returns. Forward basis contracts are available from grain merchants and, may be used, to fix the basis at a date prior to physical delivery.

Hedging has some pitfalls. If the futures price moves against the hedger, he must post additional margin to guarantee his contract performance. An adverse upward move to \$2.50 per bushel on one 5,000 bushel contract of soybeans would require the posting of \$12,500 in additional margin over the initial requirement of about \$2,000.

The worst possible position for a hedger is a situation in which the price moves against his futures position and then he fails to produce a crop to sell at the higher cash price. Crop insurance can however, minimize this risk. It complements sophisticated marketing plans which include hedging as a risk reducing strategy.

Commodities Futures Options

The newest price insurance strategy available is the Agricultural Commodity Options first traded in October 1984. The purchase of a "Put" option buys the right to sell at a fixed price a standard futures contract on the same exchange. The producer wishing to hedge expected soybean production might, instead of selling a 5,000 bushel November soybean futures contract at \$7.00 per bushel, choose to purchase a Put option on the same contract at a \$7.00 strike, or exercise, price.

Put options have a fixed cost and require no additional margins if the price moves adversely. At the same time, a Put establishes a floor or minimum price for expected production. This is achieved without limiting the possible windfall should prices rise. The cost of the Put option is the premium paid for the price protection purchased.

When harvest time and physical delivery of the soybeans occurs in October, the Put or futures position (if the Put is exercised) is covered simultaneously with the cash sale, providing the then current November futures price is below the \$7.00 exercise price. In such a case, the net return to the Hedger is \$7.00 less the current basis, and less the premium plus commissions paid for the Put option.

On the other hand, if the November futures price rises to levels above \$7.00 at delivery time, the Put is allowed to expire and the producer's gross income will be the market value of the soybeans less the cost of the Put Option.

Many possible strategies exist in a sophisticated marketing plan utilizing Put and Call options, Commodity Futures Contracts, and storage capability. Each needs to be evaluated by an analysis of profit or loss and cash flow projections.

Crop Insurance

Most producers use Casualty Insurance. They insure their cars, machinery, livestock

and barns against a host of unlikely events. Many carry million dollar liability policies in addition to health, accident, and life insurance contracts on the entire family. Most producers who purchase these types of insurance are satisfied even though they make few claims. But, somehow, when it comes to crop insurance, the subsidized, tax deductible premium is mentally placed on the input side of the ledger and regarded as unproductive if there is no claim within relatively few years. Producers need to regard crop insurance as a risk management tool, not an ill-disguised income supplement program.

Crop Hail contracts have been widely available for many years and meet one of the greatest needs for protection on many farms. Nearly one-fourth of America's crops are insured by private companies against hail and fire losses. These specific risk policies are fairly priced because of competition between writers and are relatively simple to administer. The premium rates are based on extensive data collected over 75 or more years.

Relative to hail and fire insurance, Multiple Peril or Federal Crop Insurance is a new insurance product. The Multi-Peril Crop Insurance Program has evolved from an experimental program offered prior to 1981 to the primary source of disaster protection for the American farmer. There has been about a 300 percent increase in county crop programs in just four years. Premium income has risen from about \$157 million in 1980 to an estimated \$450 million in 1984. The Federal Crop Insurance Corporation currently insures 35 different commodities under 19,000 county programs in over 3,000 counties nationwide.

As manager of the corporation, I know that, with Actual Production Histories (APH) serving as the basis of our insurance offer, the Federal Crop Insurance Corporation is now in a position to make an insurance offer which is as good as the farm operation.

The Federal Crop Insurance Corporation and its partners in the private insurance industry are now capable of serving the needs of America's producers in a timely and efficient fashion. The crop insurance contracts have been revised to improve coverage. Premium costs now more fairly reflect the risks protected against. Nearly 50 percent of the total costs of the crop insurance program is contributed by the U.S. Taxpayer in order to encourage the use of insurance as the prime source of Federal Disaster Assistance.

For many producers, crop insurance is a better buy than ever. Higher coverage levels are available at lower costs for those whose performance exceeds their neighbors. Many producers need to take another look at the improved insurance now available.

The successful businessman operating the farm businesses of the 1990s will have utilized the risk management tools available in the 1980s, in a manner which provides needed protection. Crop insurance is one of those tools - and one of the most significant in many respects. Its' judicious use, in combination with other techniques can lead to financial success by reducing the adverse

financial effects of production losses beyond the control of good producers.

Tomorrow's successful producers will demonstrate analytical skills in evaluating the profit potential of varying enterprise and marketing plans. They will learn how to manage the risks they assume. The risks in the "risky business" of farming can be

controlled. Crop insurance will be a generally accepted business practice of those who succeed.

Merritt Sprague is Manager, Federal Crop Insurance Corporation, Washington, D.C.