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## Alternative Forestry Related Farm Cash Crops

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With declining farm receipts and economic uncertainty in the agricultural community, some individuals may wish to consider alternative crops that have the potential of offering higher returns and more stability to supplement their farm income.

This bulletin describes some of those alternatives related to the forest industry, their potentials and limitations.

### CHRISTMAS TREES

Christmas trees are a large industry in Michigan. In 1986 an estimated 5.3 million trees were harvested by nearly 1200 commercial growers.

Economic returns for growers have been quite favorable, particularly when compared to other agricultural alternatives. For that reason, many are seeking to convert significant acreage to this crop.

#### The Market Situation

In 1986 nearly 13 million trees were planted, more than twice the amount harvested in the same year. Because of the number of trees that have been planted, it is expected that significant increases in trees available for harvest will occur in each of the next several years. Increased competition and lower wholesale prices are likely results.

Compounding this situation has been a significant expansion of the Christmas tree industry in other states, where farmers are likewise looking for alternative crops. Since nearly 80 percent of Michigan harvested trees are sold out-of-state, expansion in other states may significantly decrease demand for Michigan trees.

#### Identifying a Market

Because of the large number of trees being planted in the state, it is absolutely necessary to first identify a realistic market or marketing strategy before making the decision to embark in this enterprise.

The idea of packing up an unused farm truck with Christmas trees and driving to Texas to set up a retail lot, for example, may be a poor marketing strategy, given the present situation. Likewise, establishing cut-your-own operations on farms that are not in close proximity to major metropolitan areas may be very risky.

#### The Need For Quality

Once the decision has been made to plant Christmas trees, immediate consideration must be given to growing a high quality tree — these are the only ones that will have future market potential.

Growing a quality tree begins the fall before the trees are planted by carefully choosing adequate planting sites and preparing the land to eliminate weed problems that will face new seedlings. Excellent weed control is as important in Christmas tree plantations as it is with other agricultural crops.

Insect and disease control, as well as shearing and shaping, is necessary at various times throughout the rotation.

#### Time To Harvest

At a minimum, 6 to 7 years are required from the time seedlings are planted until harvest (Scotch pine). Some species, such as Douglas fir and spruces, take 10 to 12 years to mature.

#### Is it Worth the Risk?

At this time, considerable doubt exists as to the economic advantages for farmers to convert land to Christmas tree production over other agricultural crops.

Because of long-term market uncertainty, it is not clear that starting a new Christmas tree plantation will be profitable. Very careful consideration should be given before embarking on this enterprise.

### SHIITAKE MUSHROOMS

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Within the past year, a tremendous interest has developed in Michigan concerning the edible gourmet mushroom known as Shiitake (pronounced Shee-ta-kay). This meaty tasting mushroom is a product of the Orient.

Why is Shiitake of interest to forest landowners in Michigan? It is because this mushroom can only be grown on hardwood logs or wood chips from trees such as oak, beech or hornbeam. Woodlands of this forest type are abundant in the state.

Growing Shiitake offers forest landowners an opportunity to utilize low-grade trees thinned out of their woodlots.

Currently, demand on this mushroom exceeds supply. This fact, coupled with the high retail price (\$4 to \$12 per pound), is what sparks interest in growing this crop.

### **Growing Techniques**

Shiitake mushrooms are grown by first cutting live trees in late winter and inoculating them with "spawn" in April or May.

After one and a half to two years (depending on weather conditions, mushroom strain and a few other factors), the Shiitake will begin to fruit in the spring and fall after heavy rains or forced soaking. Logs continue to fruit for 3 or 4 years, and may yield over 100 pounds of mushrooms per cord of wood each year.

### **Market Potential**

Shiitake mushrooms offer some potential for farmers to supplement their incomes by growing this crop. Spawn can be purchased for \$15 to \$35 per 1,000 plugs (each log needs 35 plugs). Drills, drill bits, mallets, wax and other tools are also needed to complete the operation.

The relatively low cost of production tends to be offset by the large amount of labor involved in harvesting the trees, cutting them to size and inoculating them, as well as stacking, soaking and re-stacking to ensure fruiting over the entire production period.

### **Risk Involved**

Little research has been done in Michigan to analyze market conditions and perfect production practices for our climate. For that reason, considerable risk is involved if farmers choose to make large investments in growing this crop.

Whether Shiitake mushroom production will turn out to be a new, profitable alternative crop has yet to be determined.

## **MAPLE SYRUP**

Maple syrup production has a long history in Michigan. Indians practiced the craft long before the first French explorers arrived.

More recently, the industry has grown to include nearly 700 commercial producers and a number of hobbyists to rank Michigan fifth in the nation in maple syrup production.

### **Current Market Situation**

In 1987, at the heels of 3 relatively poor production years, demand for maple syrup exceeds the supply, increasing prices. Maple syrup is one of the few agricultural crops that is not being over-produced.

It will likely take several years of very good production to return to normal supply in the wholesale and retail market.

### **Production Requirements**

The first and foremost need of potential producers is an adequate number of maple trees of sufficient size. Sugar maples are most commonly used because of the higher sugar content of sap from these trees.

The number of trees needed depends on the size of the proposed operation. Each tap may produce enough sap to yield one-quarter to one-half gallon of syrup per year.

Second, collection equipment will be needed. The most common system now uses plastic tubing running from tree to tree and to a collection point, eliminating the costly job of emptying buckets.

Producers have the option of boiling the sap themselves or selling sap to other producers, if they are located nearby.

### **Costs**

Costs of materials to get started can range from several hundred to several thousand dollars, depending on the size of the operation and whether the producer intends to sell sap or produce finished syrup.

Generally, though, the equipment need is relatively expensive. New producers should consider outfitting themselves over a period of years, rather than all at once.

### **Risks**

Producing maple syrup is similar to other agricultural operations in that nature has a major role in profitability. Some years may be very good while many others may not produce enough income to cover expenses.

Often, farmers look to alternative crops to provide more consistency in income. If this is the goal, maple syrup production may not be a beneficial alternative. In addition, hard, time consuming work is required during the syrup season that might interfere with other farm operations.

Regardless of reasons for entering the business, producers should start small. For some, it may be best to begin by tapping trees and selling sap rather than boiling it down themselves.

## **FIREWOOD, PULPWOOD & FENCEPOSTS**

Improving the quality of farm woodlots by thinning out trees of poor quality, undesirable species or trees spaced too close together can yield significant amounts of firewood, fenceposts and other products on a yearly basis.

Although the value of these products on a per acre basis is not large, the income can be consistent. In addition, in the process of harvesting these products, the overall productivity and quality of the woodlot will increase.

Firewood is costly to transport, so producing firewood for retail markets should only be considered in areas near population centers.

## **TIMBER**

Existing timber in a farm woodlot may be used as an alternative farm crop with little initial cost.

Rather than cutting all trees of value at one time, only those trees that are “ripe” should be harvested, leaving the remaining trees to grow and increase in value.

A farmer with a managed woodlot can earn \$50 to \$60 per acre each year harvesting mature timber, depending on the species cut and assuming that harvests take place every 5 years.

These activities should be combined with removing poor trees for firewood, pulpwood or fenceposts to ensure the maximum rate of growth of the remaining high value trees.

## **WHERE TO GO FOR HELP**

For assistance in assessing the feasibility of any of these alternatives, contact your local Cooperative Extension Service office. Information may also be available from your local Department of Natural Resources forester.