Integrated
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Management
for Wisconsin

Cranberry

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Contents:

JAPANESE KNOTWEED: A NEW THREAT

A grower asked a question about a new plant on their marsh. The plant was identified as Japanese knotweed, an invasive weed. This article outlines information about this weed. Controlling this weed as you see it will be important as cranberry marshes are likely ideal locations for infestations. Japanese knotweed probably won't establish in beds, but it could be a problem on dikes and in other areas of marshes.

Japanese knotweed is a non-native, semi-woody perennial that grows in large clumps reaching heights of 3-10 feet. The stout, hollow stems are reddish brown and the nodes are swollen giving them a bamboo-like appearance.

Typical of the smartweed family, nodes are enclosed by a modified leaf-life structure. Stems die back in the winter and new ones are produced each spring. Leaves are alternate and egg-shaped (4-6 inches long and 3-4 inches wide) narrowing to a point at the tip. The tiny (1/8 inch) flowers are creamy white to greenish white and are borne in plume-like clusters in the upper leaf axils. The species is dioecious, producing male and female flowers on separate plants, however male plants are rare, flowers bloom in August - September and female plants produce triangular, shiny black fruits, however, reproduction from seed is infrequent. This plant spreads primarily by its extensive rhizomes creating dense thickets.

HABITAT. The species occupies a wide variety of habitats in many soil types and a range of moisture conditions. It is most common along roadsides and on streambanks, but is also found in low lying areas, utility rights-of-way, old home sites and along woodland edges and openings. The species requires a high light environment and grows poorly under full forest canopies.

DISTRIBUTION. Japanese knotweed was introduced from Asia as an ornamental in the late 19th century because of its unusual bamboo-like growth habit. It has been used as a landscape screening and occasionally for erosion control. It is widely distributed in the U.S., occurring in much of the Midwest and in several western states.

PROBLEM. Japanese knotweed grows quickly and aggressively by extensive rhizomes and forms dense thickets that exclude native vegetation and reduce wildlife habitat. This species represents a significant threat to riparian areas where it can spread easily as small pieces of rhizome are washed downstream and deposited to create new colonies. Transfer of soil

containing rhizome or seed may also cause the establishment of new colonies. Establishment can be prevented with careful monitoring and eradication of small patches when they first develop.

CONTROL. **Mechanical**. Large colonies of this species are extremely difficult to dig up due to their high rhizome densities. Digging of large colonies is not recommended as it is very labor intensive and unlikely that all below ground material can be removed. Small patches may be dug, however care should be used in removing plant material as improper disposal can spread the species further. Repetitive cutting or mowing within a single growing season to deplete stored reserves and remove photosynthetic tissue has been effective. Eradication of the rhizome system is necessary for control of this aggressive invasive species.

Chemical. Herbicide has been generally effective at controlling this species. Repetitive cutting of stems with spot application of Roundup®, Accord® or Glypro® to the stumps, and foliar spraying in large populations has been reported to be successful. Herbicide application is most effective in late August through September when plants are translocating material to their root systems for the winter.

Taken from the Ohio Dept. of Natural Resources web page.

NATURAL GAS PRICE FORECASTS FOR THE 2003-2004 HEATING SEASON

Wisconsin agriculture, industry and families rely heavily on natural gas to meet a variety of energy needs. In addition to being a fuel, natural gas is a feedstock for nitrogen, used to produce ammonia, the building block of all nitrogen fertilizer products. The availability and cost of natural gas profoundly affect the ability of Wisconsin's farmers to compete in today's tight agricultural markets. Unanticipated spikes in natural gas prices in 2001 and 2003 sent shudders through Wisconsin agriculture. What can be expected for the 2003-2004 heating season?

The most recent predictions of energy experts in Wisconsin and elsewhere suggest that natural gas prices will continue to rise. The Wisconsin Division of Energy (WDOE) predicts that prices for natural gas residential heating fuel may increase by 25 percent or more over last heating season. This would bring the price to more than $1.00 per therm. (A therm is 100,000 BTUs or 100 cubic feet of natural gas). An increase in natural gas prices could also increase electricity rates, since most new base electrical capacity in Wisconsin is natural gas powered for environmental reasons. The WDOE predicts electricity prices will also rise over last year.

The impacts of these price increases on fertilizer prices could be equally dramatic. The Fertilizer Institute states that natural gas constitutes 70 to 80 percent of the cost of producing ammonia. One ton of ammonia requires an average 33.5 million BTUs (335 therms) of natural gas as a feedstock. In the U.S. and Canada, some fertilizer manufacturers are cutting back on production. Others, including some Wisconsin companies, are absorbing some of the costs. Some companies may shift production overseas, where natural gas prices are lower and not as volatile.

If this is a harsh winter, prices will rise even more. A colder than normal winter will increase demand and drive up prices, perhaps dramatically.

THE REASONS FOR INCREASING NATURAL GAS PRICES

The reason for this continuous rise in natural gas prices is simple. Demand continues to grow while supply is stagnant and storage inventories have fallen.

According to the U.S. Department of Energy's Energy Information Administration, 92 percent of electrical generating capacity now under construction in the U.S. is gas fired, and the use of natural gas for power production probably will continue to grow over the next decade. Natural gas continues to be the preferred fuel for home heating. Since natural gas is relatively clean, compared with fuels like coal, and is easy to transport, growth in demand is expected. The current high price of oil on the world market also favors use of natural gas in industrial and commercial facilities.

On the supply side, production is near maximum levels. The United States gets 99 percent of its natural gas from North America (85 percent from the U.S. and 14 percent from Canada). Greatly expanding natural gas production in North America or importing large quantities of liquefied natural gas (LNG) are years away from being a reality, even if national policy mandated these actions.

THE BOTTOM LINE

The bottom line for Wisconsin agriculture is probably an increase in natural gas and fertilizer prices this winter. The significance of the increase is unknown but may be large. Improving on efficiency in energy and fertilizer use is the best way to reduce the impacts of these price increases, which may continue for some time to come.

Pat Walsh, Department of Biological Systems Engineering UW-Madison/Extension

I have wept in the night
For the shortness of sight
That to somebody's need made me blind;
But I never have yet
Felt a tinge of regret
For being a little too kind.

Author Unknown

Income Tax Consequences of Purchasing Fertilizer in the Fall

Introduction

Volatile prices for fertilizer may cause some producers to buy their fertilizer this fall rather than waiting until next spring. The income tax consequence of the purchase is one factor to consider when making that decision.

When is the Deduction Most Beneficial?

Producers should consider whether the deduction for the cost of the fertilizer would be more beneficial on their 2003 income tax return or their 2004 income tax return. Generally, the earlier a deduction can be claimed the better since it will postpone income tax liability. Purchasing fertilizer in the fall of 2003 reduces the income taxes that must be paid by the end of February 2004. By contrast, purchasing fertilizer in the spring of 2004 reduces income taxes that don't have to be paid until the end of February 2005.

Producers should be careful not to reduce 2003 income too far below their normal income because that can increase total income tax liability. In general, keeping taxable income as level as possible from one year to the next minimizes income taxes because the marginal income tax rate increases as income rises. The extra taxes paid on income in the high brackets are not fully offset by lower taxes in the low-income years. Keeping farm income above about $4,000 per year also helps to maximize Social Security benefits. If fertilizer for the 2004 crop is purchased in 2003, that cost will be deducted on the 2003 income tax return rather than the 2004 return. The deduction in 2003 could cause 2003 taxable income to be lower than

normal and 2004 taxable income to be higher than normal.

Example 1. John and Mary Farmer normally have about $50,000 of taxable income on their joint return. In 2003, they purchased $15,000 of fertilizer that they normally would have purchased the following spring. That reduces their taxable income for 2003 to $35,000. If they revert to buying their fertilizer in the spring for their 2005 crop, their 2004 taxable income could be $15,000 higher than normal.

Many other factors can affect taxable income each year, and taxpayers can control some of those factors to offset the effect of the fall purchase of fertilizer. For example, crop sales could be accelerated into 2003 to increase 2003 taxable income. Payment of other expenses could be delayed until 2004 to offset the increased fertilizer costs in 2003. Depreciable assets purchased in 2003 could be depreciated at a lower rate.

Income averaging rules allow farmers to tax part or all of their farm income at marginal income tax rates from the three previous years. This is another way to level income for income tax purposes, but it is not very precise because it requires the taxpayer to pay tax on one-third of the elected farm income at the marginal tax rate of each of the three previous years.

Example 2. Assume John and Mary have $65,000 of taxable income in 2004 as a result of purchasing their fertilizer in the fall of 2003. If they elect income averaging on $15,000 of that income, only $5,000 will be taxed at their 2003 marginal income tax rate. The other $10,000 will be taxed at their 2001 and 2002 marginal tax rates.

In summary, producers should keep an eye on the income tax consequences of shifting the fertilizer purchase from the spring to the previous fall and minimize the effect of that shift by using other income tax planning strategies.

Will the Cost of Fertilizer be Allowed as a Deduction in 2003?

Producers who have concluded that the fall purchase of fertilizer will give them a tax advantage need to make sure that they will be allowed to claim the expense as a deduction on their 2003 income tax return. There are two rules that limit the deduction of pre-paid farm expenses — expenses that are paid before the year the item that is purchased is actually used in the farm production. Both of the rules are aimed at taxpayers who have high non-farm income and are trying to use a farm business as a way to shelter that income. Consequently, neither rule affects many full-time producers.

50 percent Limit. One of the rules limits the deduction of pre-paid expenses to 50 percent of the other deductible farm expenses for the year. However, this rule does not apply to taxpayers who have a connection to a farm and who don't regularly pre-pay more than 50 percent of their expenses. A taxpayer has a connection to a farm if his or her principal occupation is farming, his or her principal residence is on a farm, or he or she is a family member of a taxpayer who meets one of those two requirements. Taxpayers are treated as not regularly prepaying more than 50 percent of their expenses if their aggregate pre-paid farm expenses for the three previous years are less than 50 percent of their aggregate non-pre-paid expenses for those years, or unless extraordinary circumstances caused the excess prepaid expenses in the current year. The rule also does not apply to taxpayers who use accrual accounting. This rule does not affect many full time farmers because they meet the requirements for exemption from the rule.

Example 3. John and Mary live on their farm and regularly pay $205,000 in farm expenses each year. About $5,000 of those expenses are pre-paid. John and Mary are

not subject to the 50 percent limit on pre-paid expenses because they meet the farm connection requirement and they don't regularly prepay more than 50 percent of their expenses.

General Test. The second rule that limits deduction of prepaid expenses is a more general test set out in Rev. Rul. 79-229. Under this test, three requirements must be met to deduct a pre-paid expense.

- **The expenditure must be a payment for the purchase of a supply rather than a deposit.** The supply that is purchased must be identified, and the producer must have ownership of the supply even if it is not delivered. If the producer just deposits money at the local farm supply and can apply it to any farm input, the deduction is not allowed until the supply is identified.
- **The prepayment must be made for a business purpose and not merely for tax avoidance.** This requirement is not difficult to meet for full-time producers. Avoiding a price increase, applying fertilizer in the fall to get an early start for the next year, and buying in bulk to reduce cost are examples of legitimate business purposes.
- **The deduction of the expenditure must not materially distort income.** The IRS seldom applies this rule to deny a deduction unless the taxpayer has distorted farm income to shelter non-farm income that would be taxed in a high bracket.

Example 4. John and Mary purchased fertilizer rather than merely made a deposit that could be applied to any farm supply. Their business purpose for the purchase is to protect themselves from a price increase. The $15,000 of added expense does not materially distort their taxable income.

Summary

Producers should consider the income tax consequences of purchasing fertilizer in the fall rather than in the spring. Most producers will be allowed to deduct the cost in the year of the purchase. That earlier deduction is generally to their benefit because it postpones tax liability. However, producers should make sure the early purchase does increase their tax liability by pushing income into higher brackets in the following year.

Philip E. Harris, Department of Agricultural and Applied Economics, University of Wisconsin-Madison/Extension

REPORTING ORBIT USE

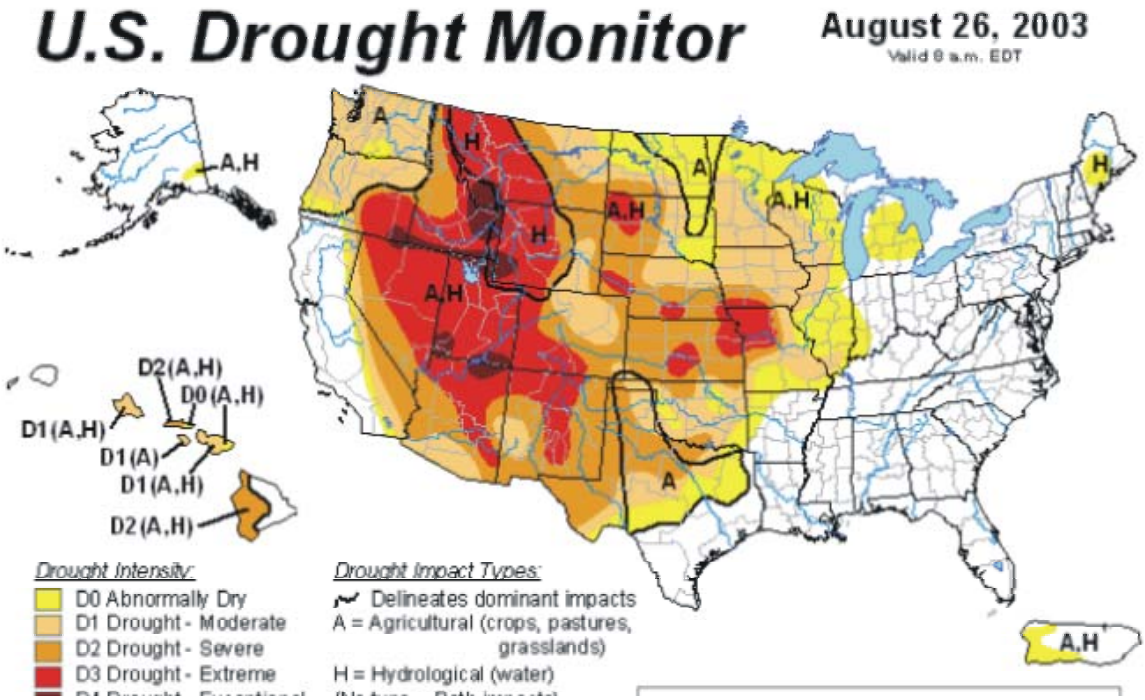
The Section 18 exemption for the fungicide ORBIT (propiconazole) expired on July 31 and now is the time to report use of this product in Wisconsin. All cranberry growers in Wisconsin will soon receive a form to record their use of Orbit. If you used ORBIT, you MUST provide the information requested on the form and return it to me no later than October 31, 2003. Reporting ORBIT use is required by the EPA, and future Section 18 or regular labels for ORBIT will not happen unless we provide them with these data.

If you have questions about reporting fungicide use, call me at 608-265-2047, or e-mail me at psm@plantpath.wisc.edu.

Patty McManus, UW-Madison Extension Plant Pathologist

1. Sit quietly for a moment, and you realize how you have been foolishly running about.
2. Learn to keep your mouth shut, and you realize you have been talking too much.
3. Avoid getting involved in too many things, and you realize that you have been wasting your time in unnecessary things.
4. Close your door, and you realize that you have been mixed up with too many kinds of people.
5. Have few desires, and you realize why you have had so many ills.
6. Be human, and you realize that you have been too critical of others.

Chen Chiju (1588-1639)



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