



**HAMILTON
AGRONOMY**

WORDS TO GROW BY

One of the most important things we help grow is trust.

INSIDE:

- Scout Wheat Early to Develop Nitrogen Strategy
- Michigan Wine Industry
- The Role of Pre-Emergence Herbicides in a Roundup Ready System
- Soil Variability & Fertility Management
- What Constitutes a “Good” investment?



John Gallagher, Hamilton Agronomy customer

Scout Wheat Early to Develop Nitrogen Strategy

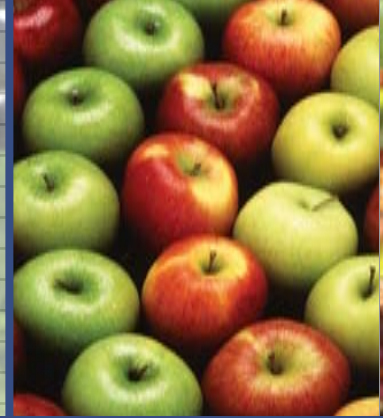
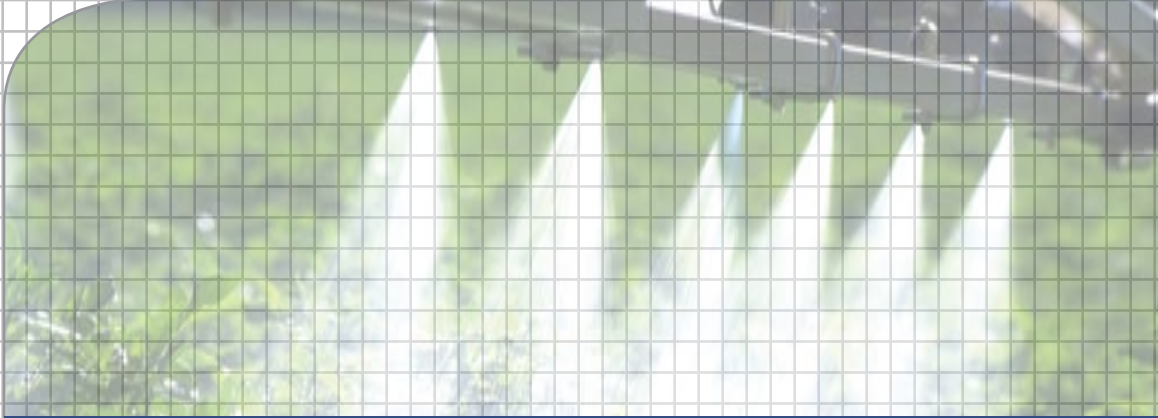
Despite the winter weather, it is time to start thinking about this season’s winter wheat crop. While last fall’s above average moisture levels hindered wheat planting throughout much of Michigan, the above average temperatures of December and early January helped much of what was seeded to continue growing and “catch up.” February’s frequent and plentiful snow showers provided an insulating blanket that not only protected the wheat, but will supply it with needed moisture when it finally melts. So what should you be doing with wheat this early in the year?

The most important thing a wheat grower can do in early spring is to evaluate your stand and determine your nitrogen strategy based on your crop’s development. Stand evaluation is critical to evaluate the population of plants per acre and the growth stage of your crop. Timing is critical. Once evaluated, decisions must be made about whether to develop a nitrogen fertility program, or in the case of a poor stand, rip up the crop in favor of corn or soybeans. The decision must be made in a timely manner, due to the fact that seed and fertilizer will need to be procured in case such a change is required. Also, depending on the growth stage of your wheat, you may need to implement an aggressive fertility plan to kickstart your young crop. This is often the case for wheat that was planted late in the fall. On the other hand, wheat that has already tillered aggressively may need to be “starved” to limit the number

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[Develop Nitrogen Strategy, Cont.]

of tillers. Wheat that has too few heads per square yard will not reach high yield. And wheat that has too many tillers will result in greater straw yield with reduced grain. As is so often the case in fertility management, finding the right balance is paramount.

The key to developing a sound nitrogen strategy that maximizes yield relies on the ability to count tillers and spoon feed your plant to achieve the ideal number of tillers and heads per square yard. Growers who have participated in Hamilton Agronomy's Intensive Wheat Management Program have utilized this approach and many have recorded whole field averages of over 100 bushels per acre. Hamilton Agronomy would like to congratulate Jerome Balder, Bob Dykhuis and Koeman Farms for breaking the 100 bushel per acre plateau in 2006!



Don't overlook the potential of your wheat crop to provide exceptional returns this season. With proper management, anyone can maximize the yield potential of their wheat. Contact your Hamilton Agronomy Crop Consultant to find out more about our Intensive Wheat Management Program!

-Toby Z. Parsons

Michigan Wine Industry

Michigan vineyard acres have grown around twenty-five percent since 1997, with most found primarily in four counties; Grand Traverse and Leelanau in the North, Berrien and Van Buren in the South. The nearly 50 commercial wineries in Michigan produce more than 300,000 cases of wine annually. Wine production and winery tourism contribute more than \$100 million annually to the state's economy.

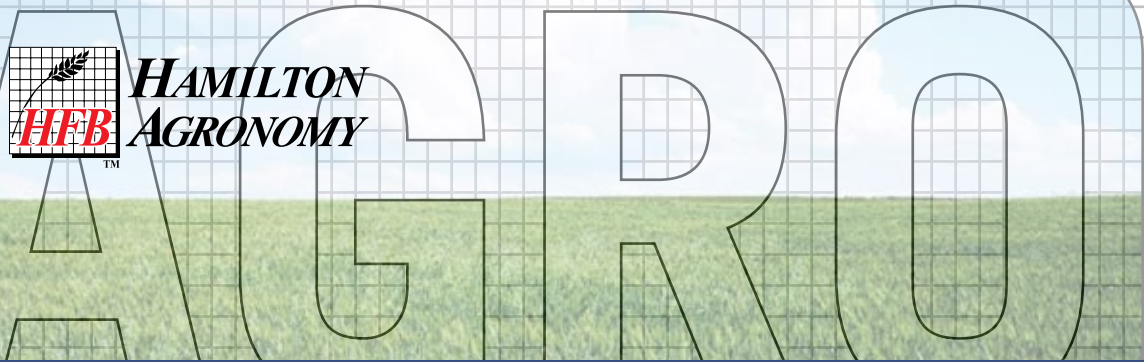
Disease / Pest Management

One of the most problematic issues grape growers face are fungal diseases such as powdery and downy mildew, as well as black and botrytis rot. There are a number of ways to minimize infestations, with canopy management and trellis systems being among the most important. However, at this time there is virtually no way one can grow healthy, clean grapes in Michigan without some use of crop protection products, especially for "the big four."

The obvious need to use crop protection products supports the need to consider what can be done to minimize the amount of chemical sprays used. For example, more than two consecutive applications of a strobilurin fungicide to your vineyard can lead to development of resistant populations of disease. It is helpful to utilize your Hamilton Agronomy Consultant to determine which products to use in a rotation that will provide the greatest benefit. While it is necessary to use chemical control,



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good site selection, trellis design, cultivar selection and especially canopy management through balanced pruning can greatly reduce the level.

Another factor in disease/pest control is Integrated Pest Management (IPM). There are a variety of approaches that minimize the necessity for chemical intervention. Using pheromone traps help determine when you reach critical problem caterpillar, beetle, or moth population levels. The resource, "Michigan Fruit Management Guide", developed and produced annually by Michigan State University, will also provide helpful information. Incorporating IPM techniques will greatly improve your environmental stewardship.

Winter maintenance is just as important to the longevity and health of vines as any other season. It is also a good time to observe how vines are doing, check trellis systems for any developing problems, and prepare for the spring season to come. With vines dormant walk the vineyard with colored plastic ribbon, marking vines with canopy problems. Your winter inspection is also a good time to watch for problem spots such as erosion, wire tension problems, post deterioration and overwintering signs of pests.

Another important part of maintaining a healthy, productive vineyard is to encourage the nesting and brooding of various "vineyard friendly" biologicals, from ladybugs and praying mantis populations to bluebirds. While many people try to discourage birds from entering their plots, bluebirds should be encouraged as they consume enormous quantities of insects and do not bother the fruit at all. Providing nesting boxes is an excellent way to encourage them to nest in your orchard.

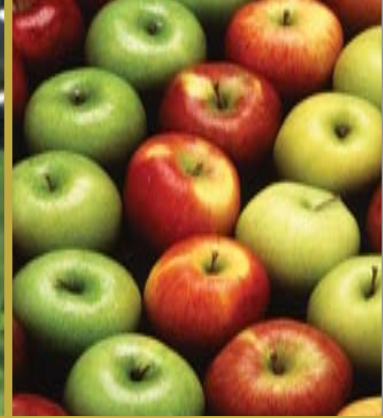
-Jeff Layman

The Role of Pre-Emergence Herbicides in a Roundup Ready System

The outlook for corn growers of late has been good. With new ethanol plants being built in Michigan and the rising price of corn, Michigan growers are looking for new ways to improve yields. The use of Roundup Ready Corn is not new, but, the amount of acres in which this technology will be used is. According to Monsanto, "(In) this year alone, we are expecting an increase in Roundup Ready Corn 2 from 32 million acres to 40 million acres, based on early season orders." As acreage increases, the amount of glyphosate being used in this country continues to rise. It is no surprise that we are beginning to see problems with glyphosate-resistant weeds.

Corn growers have relied on pre-emergent herbicides to control the majority of their weed problems. With the rising popularity of Roundup Ready crops, many growers have drifted away from this approach, and now rely entirely on glyphosate to control weed pressure. When using any herbicide on actively growing weeds, it becomes harder to control them as they get larger. A number of factors can lead to spraying for weeds at less than ideal times. The reduction of recommended rates can also lead to resistance problems.

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[Pre-Emergence Herbicides, Cont.]

Until now, glyphosate resistant weeds have been a distant problem, experienced mostly in the West.

Recently, growers and universities have been reporting these problems in the Midwest with a growing number of weeds. In fact, growers in Indiana and Ohio are already facing glyphosate-resistant Marestalk and Giant Ragweed. This does not, however, mean that the use of Roundup Ready Corn is doomed. It is an indication though that we need to take another look at how we manage it, including the use of a residual herbicide. While many growers are already doing so, many are not.

You may be asking yourself, “Why pay more for Roundup Ready Corn?” The answer is flexibility and the opportunity for increasing yields. According to Purdue Extension Weed Scientist Bill Johnson, one of the scientists who discovered glyphosate-resistant Giant Ragweed, “Growers can’t afford NOT to apply a pre-emergence herbicide in the Roundup Ready system. A pre-emergence residual herbicide in Roundup Ready Soybeans and Roundup Ready Corn 2 protects against early season weed competition

and can maximize yield.”

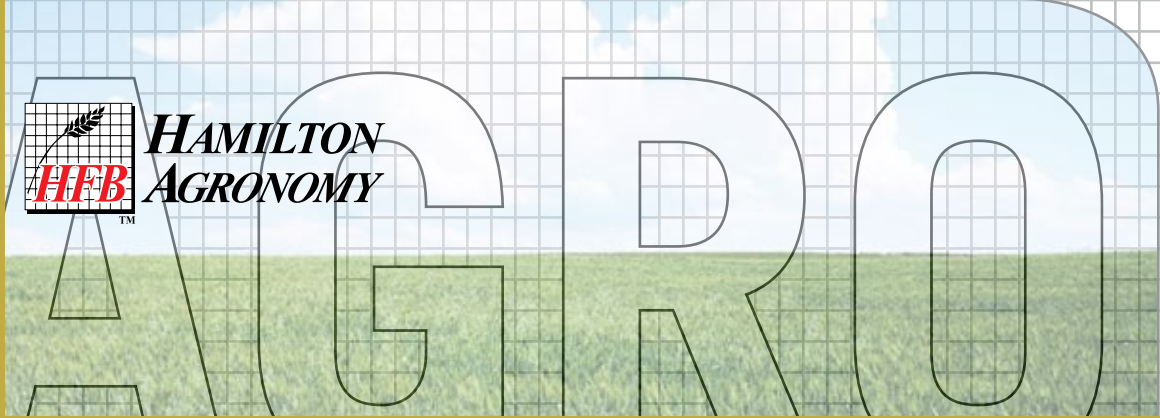
With planting season just around the corner, contact your Hamilton Agronomy Crop Consultant about weed control solutions for your individual farm.

-Jason Jablon

Soil Variability and Fertility Management

Soil variability in West Michigan is a fact of life. Large variations in Cation Exchange Capacity and soil organic matter are often exhibited within the same field. Soil nutrient values remain steady in some areas, increase due to manure applications in others, and decline due to removal from high yield crops in other areas. Cultural practices such as tillage, crop rotation and residue management also impact fertility both positively and negatively. Not to be forgotten is the role that overall nutrient balance plays in nutrient availability, whereas an overabundance of a given nutrient can reduce the availability of other





nutrients and/or micronutrients. Keeping these factors in mind, the following will focus on potassium and soil interactions, as well as outline management tips every grower should keep in mind.

Despite the incredible amount of work conducted by universities and private industry, soil/potassium dynamics are not fully understood. The assumption that potassium moves downward through the soil profile at some predictable rate does not appear to be true at all. In fact, recent work by agronomists in the corn belt show that on no-till and minimum tillage land, potassium accumulates near the surface of the soil profile. With these tillage systems, potassium that does move down will be lifted by growing crops and left near the surface at the end of the growing year.

Wise agronomists and experienced farmers understand that, once soil potassium is exhausted, it is very difficult to replenish. A high concentration of soil solution potassium must be available when environmental conditions open clay layers and allow potassium to be absorbed. It is said that it takes at least 10 times as long to rebuild soil potassium as it does to draw it down!

Given this, all fields, especially high yielding areas, should be soil tested regularly to monitor nutrient levels. Grid soil sampling provides more detailed analysis and offers the benefits of variable rate application. Utilization of variable rate applications insures that you are fertilizing only the areas that need it and at proper rates to adequately support continued crop removal. Contact your Hamilton Agronomy Crop Consultant to capture the benefits of soil sampling and variable rate fertility management.

-Toby Z. Parsons

What constitutes a “good” investment?

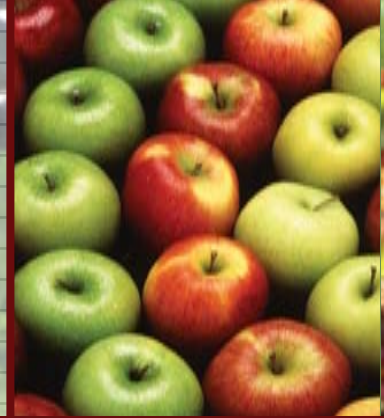
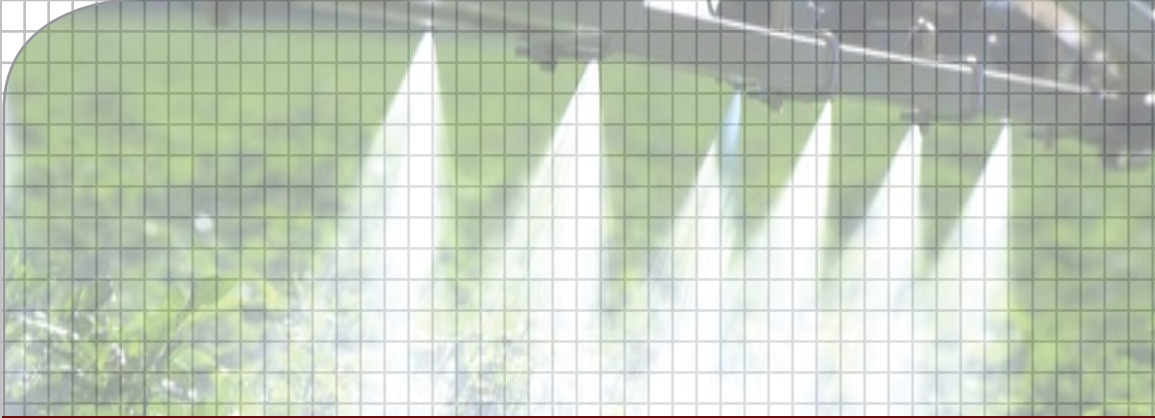
Providing the best tools for producing quality fruit or grain is what ultimately sets both our services and your operations apart from the competition.

You need to look at the price of a product or service as an investment for your business. How important is your farming operation, the investment in it, or the lowest prices? We feel John Ruskin (1819-1900) summed it up pretty well when he stated:

“It is unwise to pay too much, but it is worse to pay too little. When you pay too much, you lose a little money and that is all. When you pay too little, you sometimes lose everything, because the thing you bought was incapable of doing what it was bought to do.

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[Good Investment, Cont.]

The common law of business balance prohibits paying a little and getting a lot....it can't be done. If you deal with the lowest bidder, it is well to add something for the risk you run, and if you do that you will have enough to pay for something better."

Why would we quote something like the above, when in many cases we are the lowest bidder? When our price is the lowest, it would seem that the above might work against us. We at Hamilton Agronomy strive to bring you the best quality and service. While we always do our best to offer a competitive price for you, we are aware that we will never get one hundred percent

of the business that is out there. We are content in the knowledge that there will always be enough customers who recognize quality and are willing to invest a little for it, to insure the product quality and level of service they deserve.

Our bottom line recommendation is this – assuming that several suppliers offer comparable bids, direct your business to the supplier in whom you have the most confidence. If you do that, you will seldom be disappointed.

-Jeff Layman

Wealth of Information at Organic Production Meetings

Thanks to everyone who attended our Organic production meetings on February 7th and 8th. There was a lot of good information, and both meetings in Traverse City and in Hamilton allowed our suppliers and our customers to see the opportunities that Organic Markets provide for West Michigan producers. Special thanks to our suppliers who gave excellent presentations- Dow Agrisciences, Valent U.S.A, Miller Chemical, Nature Safe Organic Fertilizer, and Agra Quest.

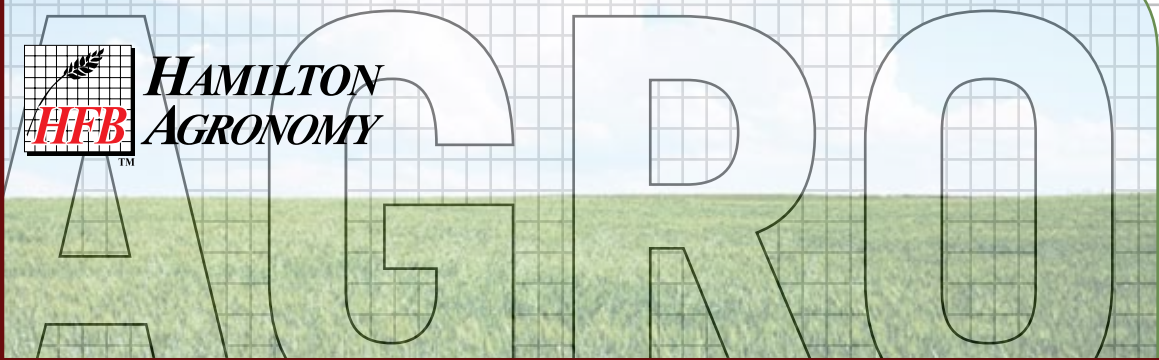
For anyone who would like information but was unable to attend, please contact Jeff Layman toll free in Traverse City at (800) 435-6743, extension 2301, or Kent Taylor in Hamilton at (877) 969-1122, extension 2109.

-Kent Taylor





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CFA 2007 Crop Input Loan Programs

1. Standard CFA Loan Program

- a. This program finances crop input products and services provided by HFB, as well as fuel, equipment maintenance, and land rent.
- b. Interest Rates: Prime + 2.5% APR for all loans under \$35,000. Prime + 2.0% APR for all loans between \$35,000 and \$100,000. Prime + 1.5% APR for all loans over \$100,000.
- c. Loan due dates are determined by the grower and the certified lender, but cannot go beyond March 15th of the year following the loan.
- d. Special approval from CFA is required for any loan request over \$250,000.

2. One Stop Crop Input Financing Program

- a. This program finances only goods and services provided by HFB.
- b. The grower commits to purchasing all fertilizer, crop protection chemicals, seed, and at least one of four crop services offered by HFB; or all fertilizer and chemical products, and at least two services. Services include: custom application spraying, custom application spreading, grid soil sampling (at least 1/3 of available acres), and field scouting.
- c. This loan is interest-free.
- d. Full repayment is due on or before Dec. 15, 2007.

3. Grain Inventory Loans

- a. The grain inventory loan is used to extend a farmer's crop input loan balance beyond its due date.
- b. The loan is secured by the farmer's grain, the existence of which is verified by a collateral inspection approved by the certified lender, or valid warehouse receipts. The inventory value

will be discounted 10% if stored in an elevator, or by 20% if stored on the farm.

- c. Interest is determined using CFA crop input loan guidelines.
- d. The loan balance is due immediately upon the sale of the collateral, or August 15, 2007, whichever comes first.

4. Specialty Crop Input Program

- a. Items Financed
 - This program will finance crop input products provided by HFB during the 2007 crop year.
 - Crop inputs provided by HFB, but purchased from another supplier are not covered by any CFA financing program administered by HFB.
 - Special approval will be required for any loan request over \$250,000.
- b. Requirements
 - Credit approval by HFB and the Cooperative Finance Association.
 - Loan due dates are determined by the grower and the certified lender, but cannot go beyond March 15th of the year following the loan.
- c. Interest Rates: • Prime + 2.5% APR for all loans under \$20,000. • Prime + 2.0% APR for all loans between \$20,001 and \$40,000. • Prime + 1.0% APR for all loans between \$40,001 and \$80,000. • Prime APR for all loans between \$80,001 and \$120,000. • Prime - 1.0% APR for all loans over \$120,000.

Another 1% will be deducted from the interest rate of any category if the grower utilizes and pays for our crop consulting services on at least 100 acres of specialty crops.

All loans are subject to approval by both the Cooperative Finance Association (CFA) and Hamilton Farm Bureau, Inc. CFA will determine the collateral required for each individual loan. CFA will determine the amount and type of collateral insurance required for each loan.



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- Soil Variability & Fertility Management

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C = Cellular