INSURANCE: A NEW LATE BLIGHT MANAGEMENT TOOL
FOR POTATO GROWERS

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Have you ever applied a pesticide or fertilizer "just in case" one might be needed? Pesticides and fertilizers are often called "cheap insurance." For a few dollars per acre, you can be certain you won't have a pest problem or a yield shortfall. On the other hand, what if you could pocket all of those dollars you've spent on inputs that turned out to be unnecessary? How much money would you have?

Integrated Pest Management (IPM) and Best Management Practices (BMPs) include techniques that can be used to determine if a pesticide or fertilizer application is truly needed. For example, a Pre-Sidedress Nitrogen Test (PSNT) can tell you how much fertilizer needs to be applied, if any, to produce the best possible yields without wasting dollars or risking nitrogen runoff and leaching. Weather stations and software can tell you when or whether to make a fungicide application to prevent late blight losses, gaining the best disease control with a minimum of pesticide dollars.

If these "input need tests" are such great ideas, why isn't everyone using them? Why do we still apply pesticides or fertilizers without knowing if they will truly deliver dollars to your bottom line? One reason is risk. What if the PSNT fails, giving the wrong results and causing a yield loss? What if bad weather prevents you from making that post-test application of nitrogen? What if the weather station is not operating properly? What if the software has a "bug"? Can you afford to risk a $2000 per acre crop to save $12, $24 or even $36 an acre on fungicide costs?

A new type of crop insurance has been developed to reduce these risks, and make IPM and BMP techniques more attractive and economical to growers. IPM and BMP input need tests can have small but real failure rates that reduce adoption by growers. In a growing number of situations, it's possible to document the risk of test failure and create insurance policies designed to compensate growers when they fail.

How do these insurance policies work? Unlike Federal Crop Insurance, they are not subsidized by the government nor do they cover a broad range of risks such as drought, floods, frost and hail. These new policies are very specific to the crop and the IPM or BMP technique involved.

Two of these innovative policies are under development for potato late blight. The first policy, suggested by Walt Stevenson, insures growers who wait to apply a fungicide against potato late blight until Cooperative Extension recommends one. Late blight development is very dependent
on weather conditions. If the weather isn’t right, late blight can’t get started. In several states including Wisconsin, Extension personnel collect weather data, determine if conditions are right for late blight, and alert growers when the first fungicide application is needed. These Extension-managed systems are in place in Wisconsin, Maine, North Dakota, Minnesota and parts of New York.

In some years, the time to start treating for late blight can be as early as the second week of June. In other years, weather favoring late blight may not arrive until mid-July, potentially saving potato growers $12 to $25 a week on fungicides. Not all growers will wait for the Extension go-ahead to treat, especially in years when this recommendation comes later than usual. That’s certainly understandable given the risk: late blight can wipe out a field of potatoes in a matter of days.

Working on behalf of the Agricultural Conservation Innovation Center (ACIC), a new non-profit organization based in Charleston, South Carolina, we researched the track record for this system. How often has the system failed to warn growers in time to prevent late blight? Very few times, and never in Wisconsin.

Based on data provided by Extension and private consultants and input from potato growers, the Wisconsin Potato and Vegetable Growers Association Board (WPVGA) and the Maine Potato Board, a commercial agricultural insurance company has agreed to develop a policy for this system. Growers who wait until the Extension recommendation to treat may be eligible to purchase inexpensive insurance that will reimburse them for any late blight damage they suffer because they waited. The policy is designed to cost from $4 to $7 per acre, much less than a single fungicide application. The policy will pay for late blight crop losses, costs to destroy an infected crop, and the cost of a “curative” fungicide application on neighboring plants. This policy is truly “cheap insurance”, saving potato growers money on fungicides and protecting against a failure in the warning system.

A second insurance program is under development following a suggestion from the WPVGA Board. This program would compensate potato growers for destroying infected potato plants. Late blight is a community problem, spreading from infected plants to potato fields up to 10 miles away in a single rainstorm. Growers who “nurse” infected plants along, hoping to recover at least some of their costs of production, risk spreading the infection to healthy plants in their own fields and those of their neighbors. Each time a new infection is found, fungicide application schedules and costs are intensified for all growers in the area.

Current regulations provide for state officials to require proper management and/or destruction of infected potato plants in commercial production or home gardens. However, if the grower does not take immediate voluntary action, several days may pass before the problem is resolved through state enforcement.

Under this new program, a trained late blight verifier is called as soon as infected plants are found. If late blight is confirmed, the verifier would recommend immediate destruction of infected plants, preventing further spread. The grower would then be paid a portion of the cost of production for the destroyed plants. The goal is to reduce the total number of late blight
infections by eliminating sources of new infections as early as possible, and thus reducing fungicide costs for all growers.

Components of the program under development for Wisconsin may include:

- incentive payments to growers who scout fields regularly for late blight, report infected potato plants immediately and destroy them upon confirmation by a trained late blight verifier

- a reduced incentive payment for growers who do not scout regularly or hire a scouting service to survey fields for late blight

- a cap on total payments to any one grower during any one season

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- an ending date of August 1 of each year for program payments

- A fund created and owned by WPVGA to be used to make incentive payments

Unused funds would be maintained in a reserve and carried over to the next season. Incentive payments would be large enough to encourage immediate reporting and destruction, but less than total costs of production so that no grower would profit from the program.

An added benefit of the program will be immediate notification by WPVGA of all growers within 10 miles of reported infections. At present, notification is sometimes delayed or not made to all growers. Timely notification allows growers to step up fungicide coverage to ensure plants are protected when threatened by a nearby infection.

Please contact the WPVGA Board or staff with your comments on this proposed program. A strong program will reduce late blight infections throughout the state and cut fungicide costs for all growers. A relatively small investment to create the fund has the potential to return big benefits to Wisconsin potato growers, and create a model for growers in other states to follow.

New insurance programs must be submitted to and approved by state regulators before they can be offered. These programs may not be available in your state. Check with your Extension agent, WPVGA, or contact ACIC at (843) 740-1325 to find out if either of these programs will be available in your area. ACIC is committed to making these and other policies available to growers wherever risk prevents adoption of techniques that can save growers money, conserve resources and benefit the environment. Please feel free to contact ACIC with your comments and suggestions on these policies or any other similar situations where insurance might help.
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