Maximizing Crop Yield and Quality: Fungicides Have a Positive Impact in 2023

Sprayer doing fungicide trial in wheat.

Fungicide treatment (left side) versus untreated control.

As the agricultural world continues to grapple with the challenges posed by fluctuating weather patterns, farmers are constantly seeking ways to optimize their crop yields and maintain product quality. 2023 proved to be an interesting year for farmers that made some question whether a fungicide application would be of use.

"It was a really interesting setup to the year in terms of our subsoil moisture being full and then leading into the year with very spotty isolated rain showers," says Laird Lampertz, agronomist at Pitura Seeds.

This situation prompted him to ponder a crucial question that many growers were asking themselves: does it pay to use a fungicide in a year like 2023, and does it make economic sense in varying weather conditions?

"We had a very warm May and warm June with a lack of rainfall. So, it was the equation for a lack of disease development," he says.

When it came time to make decisions regarding fungicide application, the consensus among most farmers was that the need for fungicides to protect against disease wasn't evident, especially for crops like peas, wheat, and canola.

However, Lampertz, known for his commitment to ground-truthing and testing ideas on a field scale, decided to investigate further.

"At the end of the day," he says, "we still want to make sure we're maximizing our yield potential of the crop." Thus, trials on peas, wheat, and canola were conducted using various fungicide products.

The results, as Lampertz candidly admits, were anything but expected.

"We had positive yield responses from multiple different products in all three of those crops, even though the presence of disease was not there," he says. These results were rigorously analyzed, comparing large-scale side-by-side trials with small-scale replication and data calibration, all recorded from the field.

The findings point to a significant shift in thinking about the role of fungicides in crop management.

"For us at Pitura Seeds, a big emphasis is placed on maximizing quality alongside yield potential," Lampertz explains. Fungicides are traditionally recognized for their ability to improve product quality, making them particularly appealing for a seed-focused operation like Pitura Seeds.

But what caught Lampertz's attention was the observation that in previous years, canola fungicides have been beneficial during dry periods. This observation raised questions about the potential impact of fungicides on other crops, such as peas and wheat.

The Trial Results: A Breakdown

Lampertz provides a comprehensive summary of his findings across three different crops: pea, wheat, and canola.

- Pea: Pitura Seeds experimented with four different products on one field, and all four products showed a positive yield response in peas for the year against an untreated check.
- Wheat: In the case of wheat, Pitura Seeds conducted trials on four fields using two different products. Remarkably, 75% of the trials, or three out of four, demonstrated a positive economic return on investment, with yields exceeding the cost of the products and application.
- Canola: Pitura's trials on canola involved two fields with four different products, which made up five different trials or five different strips. Three out of five of these trials resulted in a positive yield response.

The bottom line, according to Lampertz, is that using a fungicide was economically feasible this year on the Pitura farm in these three crops. However, he advises caution and suggests that not all fungicides may provide equal benefits on all farms.

"Just like with anything, there are some products that didn't show a benefit," he says. Lampertz says further exploration to determine which specific product types or ingredients are more worthwhile in varying conditions is ongoing.

"We're digging deeper into the findings and are going to be talking about them at our upcoming agronomy meetings," he adds.