Have You Considered Night Spraying

BATTLE RIVER IMPLEMENTS

AGRONOMY UPDATE
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When I started in this business many years ago, herbicide spraying tended to follow a certain pattern. Producers got up as early as possible in the morning, mixed up a load of spray and started applying as soon as the sun peeked above the horizon. Spraying then continued until the environmental conditions shut down operations and then started up again in the evening if the wind dropped enough. I remember dabbling in nighttime spraying, but in the days of foam marker, it was a nerve wracking proposition at best.

In today's hectic world of agriculture we are often trying to cover more and more acres with less people and larger equipment. This leads to many producers trying out new ways of doing things. In this age of GPS-guided autosteer, some producers have turned to night spraying as a way to avoid the heat and wind of mid-day, as well as a way to spread out the workload and get more efficient use out of their equipment. But almost none of the efficacy data available on the products we spray have been tested in this way – so is spraying at night as effective a way to apply herbicides as daytime applications are?

This was a question posed by Farming Smarter; a Lethbridge based non-profit organization that carries out applied research funded my many different producer groups. They conducted a 3 year study between 2012 and 2015 to see if they could find the answer. The full report can be read by following this link (https://www.farmingsmarter.com/wp-content/files/2012/11/Night-Spraying-Herbicide-Report.pdf)*, but the main focus of the project was to apply different types of herbicides – both pre seed and in crop, in various locations throughout Alberta to see what, if any differences were seen by applying herbicides in early morning, mid- day and nighttime.

... midday was the most effective timing, followed by midnight.

The results were surprising to say the least. In general, an early morning application, which is still the preferred timing for many people, turned out to provide the least consistent results. In the majority of the studies the trend tended to show that midday was the most effective timing, followed by midnight.

...Glyphosate and Liberty performed best at midday

...products tested in the pea trials, tended to work best at midnight

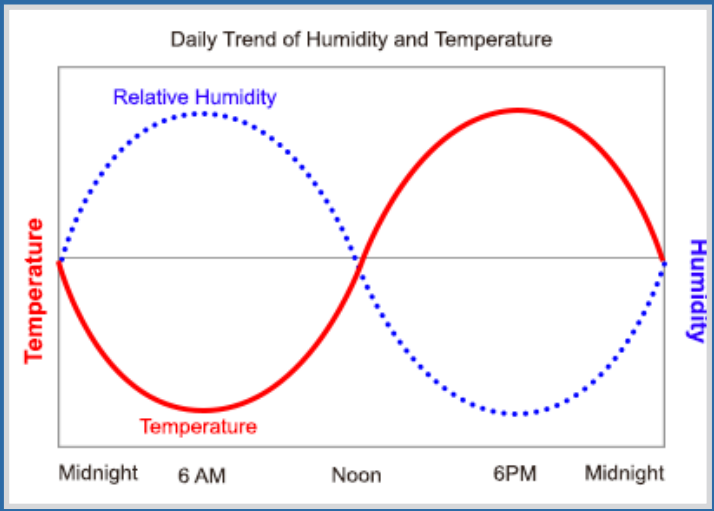
... wheat products tended to perform consistently regardless of time of day

There were also differences apparent between some of the products that were tested. In general, broadleaf weed herbicides tend to be more sensitive to time of day than grassy weed products. Digging into the specific trials it appeared that both Glyphosate and Liberty

performed best at midday and were the least consistent on early morning applications in canola. Odyssey and Select, which were the products tested in the pea trials, tended to work best at midnight while the wheat products tended to perform consistently regardless of time of day.

With these results in mind, project manager Ken Coles suggested that as a general rule, it would make the most sense to spray cereal products in the early morning, canola products at midday, and leave the peas for nighttime.

As you know, herbicide results are heavily impacted by the environment, so keep in mind that these results were consistent as long as the weather followed "normal" patterns – that is, starting the day with high humidity and low temperatures and having the temperatures rise and humidity drop as the day progressed; then having the process reverse as night falls. Days with lots of moisture and no wind made the results much harder to predict.



This is just a very brief overview of what came out of a 3 year project. If you are considering, or are presently doing nighttime spraying, I would urge you to follow the link to the report to get a full picture of what the group found in their study. It certainly provides food for thought!

**It's a pdf file so if you are having issues, make sure you are opening it using Adobe Acrobat.*

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Suggested General Rules

(Ken Coles - Project Manager)


Cereals - Early Morning


Canola - Midday


Peas - Nighttime