

2025 WINTER CONFERENCE SPEAKER PROFILE HERB DOWSE

Got Drone Questions? We've Got Answers

Are you thinking about buying a drone for your farm? Maybe you want to hire a drone for custom Ag application services? There are three key questions you should ask before you make any decisions.

"A lot of companies will sell you a drone, but they don't provide much service or teach you how to run it," said Herb Dowse, the lead pilot with Answer Ag, the service side of SkyDronesUSA, an Iowa-based distributor of drones and drone accessories.

Before you work with any drone supplier ask:

1. What services do you provide?
2. Is there someone I can speak with when I have questions?
3. Do you keep drone replacement parts on hand?

Learn more about all this during ProfitProAG's 2025 Winter Conference in Albert Lea. Speakers will include Duane Davis, founder of SkyDronesUSA, and Dowse with Answer Ag.

"There's more to successful drone applications than watching some YouTube videos," said Dowse, who noted that Answer Ag is FAA (Federal Aviation Administration) compliant, licensed, and fully insured.

Dowse has had a front-row seat to the Ag drone revolution. When he started working with drones 14 years ago, it wasn't uncommon for pilots to build their drones. "Back then, you'd be lucky if the drone came back at all, much less dock itself like drones do now. The technology has advanced tremendously in the last 14 years."

That includes camera technology/imaging software. "When you'd fly over a 40-acre field 14 years ago, it took almost two weeks to process all the images," Dowse said. "By then, the data wasn't too useful."

Today, all the images captured by the drone are stitched together instantly. "You can scout the field and see the results, right then and there," said Dowse, who serves clients in Iowa, Illinois, Wisconsin, Kansas, Oklahoma, and beyond through Answer Ag. "This allows me to write prescriptions on site."



"Tiny differences in management can lead to overwhelming differences in output and profitability."

- Dr. Jim Ladlie

We recently caught up with Dowse to get the inside scoop on Ag drone trends and the trends he's seeing with this exciting technology.

Q: Why are more farmers using drone applications?

A: Drones can offer significant efficiencies, compared to other options. Environmental conditions like wet soil don't affect them, so they can be working when ground applicators can't run. Since timing is everything, drones make it much easier to hit narrow application windows and control weeds much more effectively. If you miss the application window, herbicide applications usually just ding the weeds without killing them, which costs the farmer more expense and hassle.

Q: How fast can drones work?

A: The drones we use (DJI and XAG) can cover 70 acres per hour, at a rate of 2 gallons per acre (when applying fungicide) and 5 gallons per acre (foliar feeding). For the 2024 season, we flew the biggest drones that are legal for Ag applications. These drones had a 13.5-gallon tank and a 120-pound seeder. Bigger drones (including one with an 18-gallon tank) are coming soon.

Fast recharging is also important for efficiency. The batteries on our drones can recharge in 11 minutes.

Swarming is the next frontier with drones. New FAA regulations permit swarming, where multiple drones operate at the same time and cover more acres quickly.

Q: Why do you often fly AG drones at night?

A: This works especially well for foliar feeding. Plants respire and are less stressed at night when it's cooler. The data show 30- to 40-bushel-per-acre gains with foliar feeding at night.

Q: How can drone applications help me get more bang for my buck?

A: You can write variable-rate prescriptions, so you don't have to blanket apply products all across the field. This helps you maximize your investment and target the areas of the field where the input(s) are needed most. More precise crop-input applications help protect the environment and take better care of the land, too.

Q: How can drones be useful in tricky areas of a field?

A: Drones can handle the tight spots and odd-shaped parts of a field that might be tough for airplanes or ground applicators to access. Drones can also be a good fit if you're trying to apply crop-protection products where you need a high level of precision, like a farm field near a residential subdivision.

Q: Will drones replace large, ground-based applicators or airplanes?

A: No, I don't think so, because each option fills a different niche. Airplanes, for example, can cover a lot of acres in a day.

Q: I don't want to fly my own fields, but I'm interested in working with you. How do I start the process?

A: Call or text 515-259-0020 to start the conversation. Give us your field boundaries, and we'll get you on the schedule. When we're done, we can instantly text or email you the receipts.

Q: Anything else you'd like to add about Ag drone technology trends?

A: The drone industry is much bigger and more widespread than most people realize. As farmers become more educated about the ways drones can benefit agriculture, the more the demand grows for this technology."