

Technical Capability

R&C Drone AgSpray, LLC was formed in 2022 and is co-owned by Chris Ruskamp and Randy Camden, who have a combined experience of at least 36 years in agriculture. Over the last two years, R&C Drone AgSpray has not had any issues with off-target chemical movement on the 7500 acres of crop and pastureland we have sprayed. This success has been attributed to R&C's dedication to the safe and responsible application of agricultural chemicals.

Chris Ruskamp graduated from the University of Nebraska-Lincoln with an Agribusiness degree in 1993. He worked for an agriculture retailer for 2.5 years, operating application equipment and making fertilizer and chemical application recommendations. He has been in the seed business since 1996 and has owned Ruskamp Seeds since October 2006.

Randy Camden graduated from Northeast Community College in Norfolk, NE, with a Precision Agriculture associate degree in 2018. Randy has been with Ruskamp Seeds for five years in seed sales and agronomy. Additionally, he works with Precision Planting equipment installation and repairs of row crop planters. Randy is entering his third season of agricultural drone spraying and is the chief pilot and operations manager at R&C Drone AgSpray. Randy has piloted nearly 5000 of the 7500 total acres over the past two years, with the remaining acres covered by our second pilot, Beau Ruskamp. Randy has also received training in the service and repair of DJI agriculture drones, allowing us to save time and money for drone maintenance and repair.

The DJI Agras T40 was chosen because it allows us to achieve our project goal by using less water during the chemical application than a traditional ground sprayer. The T40 also allows us to switch tanks to a dry spreader to spread cover crop seed to help improve soil health and biodiversity and aid in the nutrient management recycling process. R&C Drone AgSpray has also begun to work with Seed Enterprises of West Point, Nebraska, to develop our own cover crop mix specialized for drone applications. This mix aims to increase the drone's productivity in spreading cover crops while creating soil biodiversity, soil/water conservation, and a sustainable nutrient recycling system.

The DJI Agras platform has a well-established reputation for reliability and longevity. We know an operator out of Montana whose drone has accumulated over 3000 flight hours in the past five years. This shows that drones can easily have a useful life of well over five years with dedicated maintenance and care. One component that requires careful handling while in

storage during the winter is the DJI intelligent batteries. Batteries must be kept in a climate-controlled room to ensure maximum battery health for the next season.

As previously mentioned, aircraft maintenance greatly depends on the pilot and how they operate the machine. A plan we have in place to proactively maintain the aircraft is much like manned aircraft. We will conduct quarterly inspections of the aircraft, including calibrations and health tests of electrical components, along with a physical condition inspection of the hardware on the aircraft. Calibrations and health checks include checking sensors, weight scales, flow meter accuracy and ensuring the firmware on the aircraft is up to date. The physical condition inspection comprises checking that the bolts and screws are tight and in good condition, along with an inspection of aircraft arms and propellers for cracks or any other damage. We will also inspect electrical harnesses visually to ensure they are in good condition. Furthermore, we will periodically charge the batteries when not used for extended periods. In our experience, these inspections have been shown to increase the useful life and lower the overall operating cost by proactively fixing issues before they become serious problems.