

HIGH CLEARANCE SPRAYER FOR WEED CONTROL PLOTS. Jeffrey G. Tank*, Gregory K. Dahl, Joe V. Gednalske and Eric P. Spandl, Research Agronomist, Research Coordinator, Product Development Manager and Agronomist, Agriliance LLC, St. Paul, MN 55164.

A high clearance sprayer was manufactured to conduct pesticide and adjuvant research on tall crops. This tractor mounted sprayer was developed to spray plots with tasseled corn, make broadcast preemergent and postemergent applications on various crops, and spray deposition trials using various adjuvants. The sprayer needed to be versatile and easy to clean out between applications.

A frame from a pull type sprayer provided the starting point. Steel tubing was used to reinforce and modify the sprayer. A twenty-five foot boom was built to allow four rows of corn planted thirty inches apart to be sprayed on either side of the tractor. The sprayer was constructed to allow quick attachment to the tractor, easy vertical adjustment in two inch increments, and a folding boom for easy transport.

Connections were made with couplers and valves for fast and easy cleanout when switching treatments. An in-cab controller allowed the operator to monitor and adjust spray pressure and activate any combination of the three boom sections. A Filter, solenoids and valves were mounted on the side for easy access and the pump was placed below the tank for improved cleanout.

The cost of the sprayer was much less than an investment in a self propelled high clearance sprayer.