

Preharvest herbicide application effects on winter wheat harvestability

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Weeds continue to be common in many winter wheat fields at harvest. Late plantings due to delays in previous crop harvesting and earlier winters do not bode well for good establishment of wheat. In addition wetter than normal springs can narrow the window for spring herbicide applications and in some cases prevent them. A field experiment was conducted at the Michigan State University Agronomy Farm in 2015 to evaluate the effect of preharvest herbicide applications on weed desiccation and winter wheat harvestability. Preharvest herbicide treatments included: dicamba, 2,4-D amine, carfentrazone, saflufenacil, glyphosate, and glyphosate in combination with carfentrazone and saflufenacil. Applications were made when wheat was physiologically mature. All treatments were compared to a nontreated control. Common lambsquarters and common ragweed desiccation were evaluated 3, 7, 10 and 15 days after treatment (DAT). All plots were harvested and each plot was assigned a harvestability score and yield was recorded. Samples were collected to measure grain moisture, test weight, percent foreign material, weight of 100 seeds and wheat seed viability. Saflufenacil alone and in combination with glyphosate provided over 85% common ragweed desiccation 3 DAT. A high level of common ragweed desiccation was also found with glyphosate, however this was not achieved until 15 DAT. Common lambsquarters desiccation required glyphosate and at least 15 DAT. Harvestability scores were also highest with treatments containing glyphosate. These treatments also resulted in the highest test weights, lowest grain moistures and lowest amounts of foreign materials in the harvested crop. Preharvest treatment had little effect on wheat yield. Data from this year's research suggests that of all of the potential preharvest herbicides for use in wheat, glyphosate and glyphosate combinations were the only treatments that resulted in overall effective weed desiccation that improved wheat harvestability and reduced factors that can lead to dockages at the point of sale.

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