EFFECT OF NITROGEN ON COMMON WATERHEMP CONTROL IN CORN AND SOYBEAN.
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Nitrogen is considered one of the most important nutrients for the establishment of weeds. Therefore the objective of this research was to evaluate the effect of nitrogen on the control of common waterhemp in corn and soybean. In corn, nitrogen had no effect on common waterhemp population 56 days after planting. However, nitrogen increased common waterhemp population by 8% in soybean. In corn, nitrogen at 100 lb/A increased fresh biomass of common waterhemp by 125%. Nitrogen did not significantly increase fresh biomass of common waterhemp soybean. Nitrogen increased common waterhemp height in corn and soybean. Common waterhemp competition reduced corn height with nitrogen at 0 and 100 lb/A. Common waterhemp competition did not reduce soybean height regardless of nitrogen rate. In corn, there was no difference in common waterhemp control with herbicides applied preemergence regardless of nitrogen rate. Nitrogen reduced common waterhemp control with a postemergence application of mesotrione by 12 to 18%. There was no difference in common waterhemp control in soybean regardless of herbicide application method or nitrogen rate. Common waterhemp competition reduced corn grain yield by 28 to 68% and reduced soybean grain yield by 42 to 69%.

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