CARRYOVER EFFECTS OF SULFUR FERTILIZATION FROM ONE CROPPING SEASON TO THE NEXT

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ABSTRACT

Corn and soybean grain yield increases with S fertilization are not uncommon in Indiana. Low rates of S fertilizer (<15-20 lb S/acre) are needed to maximize grain yield response. We found that sulfate-S fertilizer applied to silt loam or heavier textured soils in one cropping season provided S to the crop grown the next season more often than not. At some S responsive locations, S applied the prior season at 10 to 20 lb S/acre produced yields of the second crop equivalent to crop yields with in-season fertilization. Continued research is needed to determine the soil, weather, and management factors that affect the magnitude of carryover and to ascertain the predictability of S carryover from one crop to the next.