Double Cropped Forages for Maximizing Phosphorus Removal in Southwest Idaho. (S08-brown104207-Poster)

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Abstract:

Maximizing crop phosphorus (P) removal may increase animal waste loading rates. The potential for increased P removal with winter cereal-corn silage double crop forages was evaluated in a three year study in a Greenleaf silt loam. The study involved three winter (triticale, wheat, and barley) and two spring cereals (triticale and wheat) fall planted at 100, 150, or 200 lb seed per acre and followed with silage corn. Winter forages were harvested at the boot stage. Seeding rates of 150 lb per acre were often necessary for maximizing winter forage production and P removal. Winter triticale was the most productive winter forage producing 8.8 tons per acre of dry mass and removing 59 lb P per acre over the three years. Total P removal after three years with double cropping winter triticale and corn exceeded P removal with single crop corn by 42% or 50 lb P per acre (169 vs 119 lb P per acre). Soil test P after three years was reduced 5.7 ppm more with double cropping than with a single corn crop. Double cropping winter forages and corn can increase the animal waste loading capacity of soils or hasten the decline in soil test P.

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