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## INTRODUCTION

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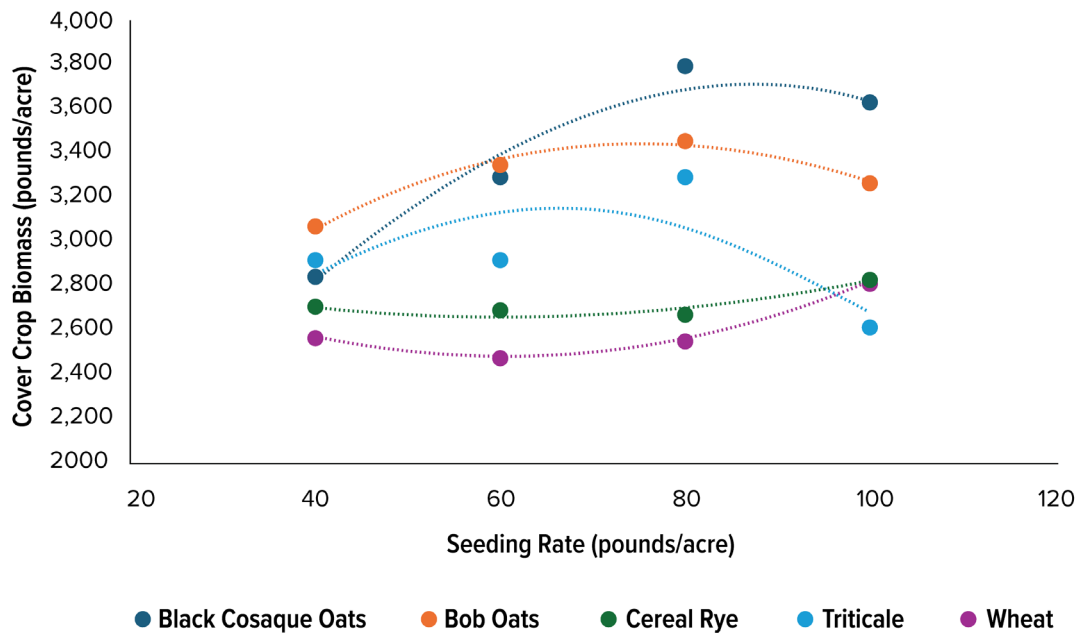
Cover crops serve the primary purpose of providing soil surface cover to protect soil from erosion. Research has also demonstrated a variety of secondary benefits depending on the type of cover crop used. Secondary benefits include scavenging nutrients, in particular nitrogen (N), from the soil, as well as suppressing weeds, supporting diverse microbial communities, stabilizing soil and increasing soil organic matter. Legumes have the potential to form symbiotic relationships with bacteria in the soil, allowing them to turn N from the atmosphere into a plant-available form of N. The selection of type and species of cover crop should be based on the needs of the producer.

Research conducted in Louisiana at the Northeast Research Station in St. Joseph and the Macon Ridge Research Station in Winnsboro examined the benefits of cool-season grass cover crops, including the evaluation of seeding rates, to determine optimum biomass production and ground cover. This information may be used to make general recommendations concerning cool-season cover crop species and seeding rates. Varieties listed below have been evaluated in Louisiana across multiple soil types and environmental conditions and found to perform satisfactorily. Seeding rate recommendations are based on optimum seed quality that meets germination and purity seed standards as determined by the Louisiana Department of Agriculture and Forestry's Agricultural Chemistry and Seed Commission.

## ANNUAL GRASSES

Cool season grasses evaluated included black Cosaque oats, Bob oats, cereal rye, triticale and wheat. Cool-season annual grass cover crops should be seeded at a rate of 60-90 pounds bulk seed per acre. This includes an optimum rate of 60 pounds per acre for drill seed and up to 90

pounds per acre for broadcast. These rates are not intended for use in hay production, grazing forage for livestock or seed production. Increasing the seeding rate may provide increased weed suppression. Speak with your local extension agent for recommendations



**Black Cosaque Oats (*Avena sativa*):** Cosaque oat is a black seeded winter oat that grows well in the fall and overwinter in the mid-Atlantic and northeastern states. Minimum germination temperature requires at least 38 F, with a recommended planting depth of 1-2 inches.

**Bob Oats (Red Winter oat or Red Rustproof oat) (*Avena sativa*):** Bob oats have a fair cold tolerance and can be planted in spring or fall. Although planted primarily for row crop benefits, it can be good for livestock and wildlife grazing. Minimum germination temperature requires at least 38 F, with a recommended planting depth of ½-1 inch.

**Cereal Rye (*Secale cereale*):** Cereal rye is a hardy option that can be planted later into the fall and grows well over winter in the Midsouth region. Minimum germination

temperature requires at least 34 F, with a recommended planting depth of 1-2 inches.

**Triticale (x *Triticale*):** A mix between wheat and cereal rye, triticale provides similar growth and weed suppression to cereal rye and a fibrous root system to protect soil from erosion. Minimum germination temperature requires at least 38 F, with a recommended planting depth of ½-1 ½ inches.

**Wheat (*Triticum aestivum*):** Although most often grown as a grain crop, winter wheat can also provide many of the same benefits as other cereal cover crops. With slower maturing times compared to other cereals, wheat can offer additional living roots systems throughout the fallow season. Minimum germination temperature requires at least 40 F, with a recommended planting depth of ½-1 ½ inches.

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P3942 (online) 8/24

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