

Broadleaf Weed Control with ProClova™ in White Clover/Grass Pastures

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Needs/Goals

A new herbicide formulation, ProClova™, from Corteva™, is awaiting registration from the Environmental Protection Agency (EPA) and is anticipated to be released in 2022. Once approved, ProClova™ may be a weed control option in white clover pastures. With the registration pending, in-field demonstrations are needed to provide local results to Arkansas county agents to make recommendations to their producers.

Methods

Seven fall demonstrations and seven spring demonstrations were conducted around the state. The weeds most common across all demonstrations were common chickweed, sticky chickweed, buckhorn plantain, musk thistle, and buttercup. Treatments included: 1.5 pt./acre ProClova™, 3 pt./acre ProClova™, and 1 qt./acre 2,4-D amine. Per the manufacturer's technical bulletin, the ProClova™ formulations contained 1% v/v MSO (methylated seed oil). 2,4-D formulations contained 0.25% v/v NIS (non-ionic surfactant). Plots were 10' x 50'. Treatments were made with a CO₂ backpack sprayer. Fall applications were made from October-December. Spring applications were made from February-March.

Results

Weed control was generally consistent across all demonstration locations and treatments (Chart 1). No difference was observed between the fall and spring applications. Common and sticky chickweed control was poor with all treatments. Buttercup, thistle, and plantain control was excellent. Plots were visually rated on a scale of 0-100, with 100 being excellent, 100% control of the target weed species. White clover had good tolerance to all treatments. Among all treatments, there was some discoloration and lodging, initially, but white clover recovered fully within 4-6 weeks. 2,4-D amine at 1 qt./acre is an economical treatment that provided equivalent weed control for the species present when compared to the two ProClova™ rates. Costs for ProClova™ have not been released.

Chart 1. Evaluation of Broadleaf Weed Control with White Clover Safe Herbicides

