

Identification and Control of Southern Sandbur (*Cenchrus echinatus* L.) in Hayfields¹

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Figure 1. Southern sandbur.
Credits: Hunter Smith

Southern sandbur is an annual grass that grows in pastures and cropland throughout the warm areas of the southern United States from Virginia to California. This native grass is adapted to dry, sandy soils and has a shallow, fibrous root system. It can easily invade a poorly managed field, diminishing the quality of a hay crop or grazing pasture. Southern sandbur seeds start to germinate in late spring, and germination continues through the summer and fall. Flowering occurs in late fall, and growth is consistent until the first frost.

Identification

Sheath and Ligule

Southern sandbur has a smooth, open leaf sheath that can have fine hairs along its margin. The ligule is ciliate with a pubescent ring along the light-colored collar.

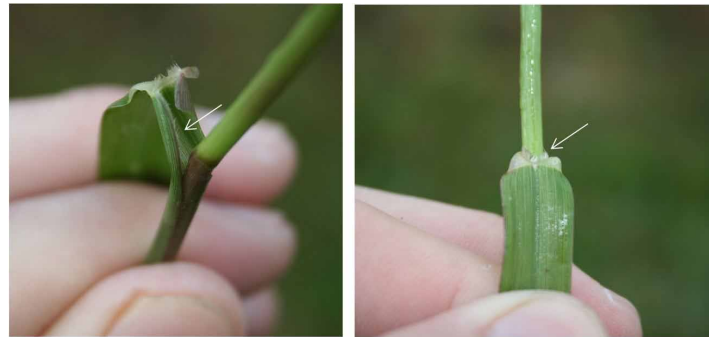


Figure 2. Left: Pubescent hair on sheath margin. Right: Ligule.
Credits: Hunter Smith

Stem and Leaf

Stems are round with a reddish tint ascending from a bent base growth habit. The leaf blades are flat with very short, thick hair on top and a smooth glabrous surface below (certain biotypes may have hairless leaves and stems). The short hair on top of the leaf blade is visible with magnification

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and has a sandpaper-like feel. Leaf margins can have long hair adjacent to the collar as seen in Figure 3.



Figure 3. Long hair present on leaf margin closest to stem.
Credits: Hunter Smith

Seedhead

The seedhead of southern sandbur has a raceme orientation with spiny burs attached directly to the floral stalk. Each bur contains 1–3 seeds, and they are easily dispersed when the spines attach to animals, clothing, or machinery.



Figure 4. Left: Southern sandbur seedhead. Right: Close-up picture of individual burs.

Credits: Hunter Smith

Management

Pre-emergence

Prowl H₂O (pendimethalin) at 1.1–4.0 quarts per acre. Fields must be dormant and Prowl H₂O cannot be used on newly planted pastures. This herbicide must be activated with rainfall or irrigation within two weeks of application. Not receiving activating rainfall within this time period will result in herbicide failure. There is a 45-day grazing restriction and 60-day haying restriction following application.

Post-emergence

BERMUDAGRASS ONLY

Pastora (nicosulfuron + metsulfuron) at 1.0–1.5 ounces per acre. For best results apply to seeding sandbur. For larger plants, apply Pastora after hay removal to minimize bermudagrass response and to suppress sandbur. The addition of 6 oz/A of glyphosate will improve control over Pastora alone when applied after hay removal. Do not apply more than 2.5 ounces of Pastora per acre per year.

Plateau/Impose (imazapic) at 4 ounces per acre. This treatment may suppress bermudagrass growth for 30–45 days after application. Do not use on drought-stressed bermudagrass or during transition from dormancy to green-up.

Roundup WeatherMax (glyphosate) at 8 ounces per acre. Apply immediately after hay removal, but before bermudagrass has resprouted. If sandbur is not totally controlled by the herbicide, the resprouting bermudagrass should smother it out and prevent seedhead formation.

ALL OTHER PASTURE GRASSES

Glyphosate at 0.5% solution. Spot spray glyphosate in all areas where sandbur is present. This application will kill desirable grasses, so use caution when spraying.

Other Management Practices

Mowing is often ineffective in the control of southern sandbur. Because of sandbur's low growing habit, plants can produce seeds below the mowing height.

Grazing of southern sandbur is an option early in the season at the seedling growth stage. This may only suppress the stand because cattle will not graze on southern sandbur after flowering. Once it is flowering, the spiny burs make it an undesirable forage.