

SANDBUR SOLUTIONS



THE PROBLEM

Sandbur, also known as grassbur (*Cenchrus* spp.), is an annual plant that can cause economic losses primarily by reducing quality and quantity of forages in bermudagrass pastures. Sandbur prefers sandier soils (hence, it's name) and germinates throughout the growing season. Perennial sandbur, those that overwinter, have been identified throughout Texas, Oklahoma and New Mexico and offer a bigger challenge to manage. Soil disturbance from tillage, gophers, or feral hogs may increase sandbur germination and spread. Soil temperatures in the 72-75 degree range can initiate sandbur germination.

Managing sandbur is a program approach that requires knowledge, diligence and patience. A successful program may combine cultural, biological and chemical inputs (Integrated Pest Management or IPM). However, it may take several years to bring a problem under control.

A healthy bermudagrass stand is one of the best tools to manage sandbur, so a good nutrient program is essential. A planned burn is also a good tool to consider. Fire can destroy the outer seed capsule that houses the sandbur seed and aid in a more uniform germination of seedling sandburs. Properly timed herbicide applications can also be a great tool in battling this problem. Proper timing is essential.

START WITH A SOIL TEST

Determine forage, soil fertility and micronutrient needs for the coming year by conducting a complete soil test in late fall or early winter. Soil pH affects availability of several key nutrients. Sandy soils are low in Potash (K) and need to be supplemented according to soil test recommendations.

Bermudagrass requires macronutrients in a ratio of 4-1-3, therefore 1 ton of bermudagrass hay requires 50 lbs. of (N) Nitrogen, 14 lbs. of (P) phosphorous and 42 lbs. of (K) potassium. Apply nitrogen (N) in early spring after soil temperatures reach 60° F and/or between cuttings to maximize its use. If a soil test requires lime, phosphorous or potassium, apply in the fall as needed as fall applications will provide the best results.

It is very important to fertilize according to recommendations if you want to reach your projected forage goals.



Photo: Gerald Hobson, Bayer CropScience.

"Overwintering" or perennial sandbur.



Photo: Jack LeClair, Bayer CropScience.

Sandbur seedhead.



Photo: Gerald Hobson, Bayer CropScience.

Sandbur seedling



THE SOLUTION

Pre-emergent solutions

Prowl® H2O herbicide may be applied in fields of bermudagrass grown for hay production or livestock grazing. Do not harvest grass hay for 60 days after treatment with Prowl H2O. Do not harvest for forage or allow livestock to graze grass until 45 days after treatment with Prowl H2O. Prowl H2O is most effective when applied by ground or aerial equipment, then subsequently incorporated into the soil by rainfall, sprinkler irrigation, or mechanical tillage prior to weed seed germination. Do not use on rangeland. Review the current Prowl H2O label for further restrictions on timing and use.

Post-emergent solutions

Pastora® is more than a grass herbicide. It can help manage sandbur as well as 25 other problem grasses. This includes little barley, rescuegrass, Johnsongrass, crabgrass, and ryegrass (non ALS resistant), plus over 100 broadleaf weeds like henbit, chickweed, mustards and many more. Apply before bermudagrass reaches 2" tall. Tank-mix Pastora with Cimarron® MAX to better manage

perennial broadleaf weeds. A follow-up application of Pastora may be necessary to control late-germinating sandbur. See chart below. Prescribed burns may aid in reducing germination of the sandbur seed and adding potash to the soil.

Coverage, nozzle spacing/type and orientation are all very important Pastora can be applied in water or liquid fertilizer. Flat fan nozzles on 20" spacing will provide the best coverage of small seedling sandburs. Small flood tips (TK 5's-7.5's on 20-40" spacing can provide adequate coverage as water/fertilizer volume's are increased.

If applied in water

– use 1-2 quarts

If applied using liquid fertilizer as the carrier

– limit actual N to no more than 30 lbs./acre.

If Pastora is being used as a spot treatment

– apply at the rate of 2.5 oz./100 gallons of water.

APPLICATION TYPE	SOLUTION	RATE (per acre)	APPLICATION NOTES
Pre-emergent	Prowl H2O	1.1 – 4.2 qt	Apply only to established bermudagrass fields (those planted in fall or spring that have been cut/mowed at least once)
Post-emergent (sandbur <1.5" tall)	Pastora	1.0 – 1.5 oz	Apply to bermudagrass fields established for at least one growing season
Post-emergent (sandbur >1.5" tall)	Pastora + Roundup® or glyphosate	1.0 – 1.5 oz + 4.0 – 6.0 oz (of a 5.5 lb/gal glyphosate formulation) 1.0 – 1.5 oz + 5.0 – 8.0 oz (of a 4.0 lb/gal glyphosate formulation + 0.25 – 0.5% of non-ionic surfactant)	Allow at least 16 days between applications DO NOT apply Pastora more than twice a year or apply more than 2.5 oz/acre/season

For more information about effective vegetation management, contact your Bayer representative or visit BayerVM.com. Publication (SCS-2009-10) by Dr. Paul Baumann, Professor & Weed Specialist with Texas A&M AgriLife Extension Service describes management of sandbur and is an excellent resource.

