

FIGHT BACK.

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WHEN COGONGRASS
ATTACKS, FIGHT BACK
WITH **ARSENAL[®] HERBICIDE**
APPLICATORS CONCENTRATE.

BASF  PROFESSIONAL
VEGETATION
MANAGEMENT

COGONGRASS

ONE OF THE WOR

Cogongrass is a fast-growing, rapidly spreading perennial grass that infests more than 1.25 billion acres worldwide.



...it's been called "one of the World's 10 Worst Weeds," "the Grass from Hell" and "the mother of all invasive species..."

FORESTRY FACTS
COGONGRASS CONTR

our home's value

The Perfect Weed?

Hardy; at home in a wide variety of soil types and ecosystems; tolerant of shade, full sun, high salinity, drought, flooding, mowing and fire; able to reproduce and spread via wind-borne seeds or sprouting rhizome fragments, with rapidly growing stands forming thick mats at ground level and reaching heights of up to five feet. Small wonder cogongrass has been called the “perfect weed.”

Driving Out Native Plants. Dense cogongrass stands compete for nutrients, rooting space, moisture and sunlight by literally growing through the roots of trees and other vegetation.

Displacing Wildlife. As it overwhelms native plant species favored by ground-nesting wildlife, like turkey and bobwhite quail, cogongrass displaces wildlife such as the endangered gopher tortoise, which depends on grasses and legumes driven out by the weed.

As one wildlife biologist puts it, large cogongrass infestations “create biological deserts that have no value as brood rearing habitat for quail and turkeys or as foraging grounds for various songbirds.”³

“LARGE INFESTATIONS [OF COGONGRASS] CREATE BIOLOGICAL DESERTS THAT HAVE NO VALUE...”

~ RANDY BROWNING, USFWS AND MISSISSIPPI FISH & WILDLIFE FOUNDATION BIOLOGIST

In addition, cogongrass is allelopathic: chemicals produced by the weed suppress the growth of other plants.² This may be the reason stands of cogongrass tend to be monotypic, that is, populated by cogongrass only. But the aggressive alien weed also crowds out native plants, forming thick ground-level mats that act as a physical barrier to seedling establishment.

Displacing Forage. Plant-eating animals shy away from cogongrass for good reason. It drives out healthy, native food sources and makes a poor substitute for foraging wildlife.

Fire Risk. While cogongrass roots and rhizomes are remarkably fire-tolerant, the plant is extremely flammable. Worse yet, its vegetative density means that burning cogongrass can send temperatures soaring to more than 840°F at heights of up to five feet. The result? More frequent, hotter fires and disruption of the natural fire regime.



The Perfect Solution: Quality Vegetation Management™ With Arsenal® Herbicide Applicators Concentrate.

Cogongrass spreads quickly in a variety of ways. Wind-borne seeds – as many as 3,000 from a single plant, attached to feather-light, silky-white bloom-hairs – can be carried as far as 15 miles.

Cogongrass is also spread unwittingly by people – through rhizome-contaminated hay, dirt and sod – as well as through land-management practices, excavation, construction machinery and timber harvesting equipment, which pick up contaminated dirt or cogongrass rhizome fragments.

Once it's taken root, cogongrass is very hard to control. Burning is only a temporary setback for the fire-tolerant weed. And mowing is only effective in removing aboveground portions of the plant – allowing cogongrass recovery with little adverse effect as new shoots emerge.

For effective, long-term control, integrated vegetation management tactics are best, using a selective herbicide such as **Arsenal AC**.

According to studies conducted by the Agronomy and Soils Department at Alabama's Auburn University, **Arsenal AC** is a key component in the effective, long-term control of cogongrass.

Research shows that **Arsenal AC** also fits well into re-vegetation systems – both crimson clover and bahiagrass were found to thrive in areas previously infested with cogongrass that had been treated with **Arsenal AC**. In recent studies, **Arsenal AC** reduced cogongrass stems by more than 80 percent – without prohibiting colonization by other species. With the addition of glyphosate and overplanting, above-ground control reached



Arsenal AC is a surfactant free, aqueous solution to be mixed in water and generally applied as a post-emergent spray for control of most annual and perennial grasses, broadleaf weeds, vines and brambles, and hardwood brush and trees for forestry site preparation and release of conifers from woody and herbaceous competition.

Growing height: 3 - 5 feet (avg.) late in a growing season.

Leaf blades: narrow-erect, sometimes with a whitish midvein noticeably off-center; tips can be sharp and pointed.

Flowers: white-silky and plume like; paired on unequal stalks, with each spikelet surrounded by long white hairs. Blooming cogongrass and silver beardgrass look similar, but silver beardgrass blooms mid-summer, while cogongrass blooms in spring (except in Florida, where it blooms year-round).

Allelopathic: produces chemicals that inhibit the growth of other plants.

COGONGRASS IMPERATA CYLINDRICA

- Non-native, fast-growing perennial grass.
- Forms dense ground-level mats, with scaly rhizomes below ground.
- Extremely flammable: dense growth causes hotter and more frequent fires. Alters natural fire regimes.

RECOMMENDED PRODUCT

Arsenal® herbicide Applicators Concentrate is powerfully effective – controlling cogongrass and other undesirable species down to the roots.



“IN EIGHT FIELD STUDIES OVER THE LAST THREE EXCELLENT RESULTS IN THE LONG-TE

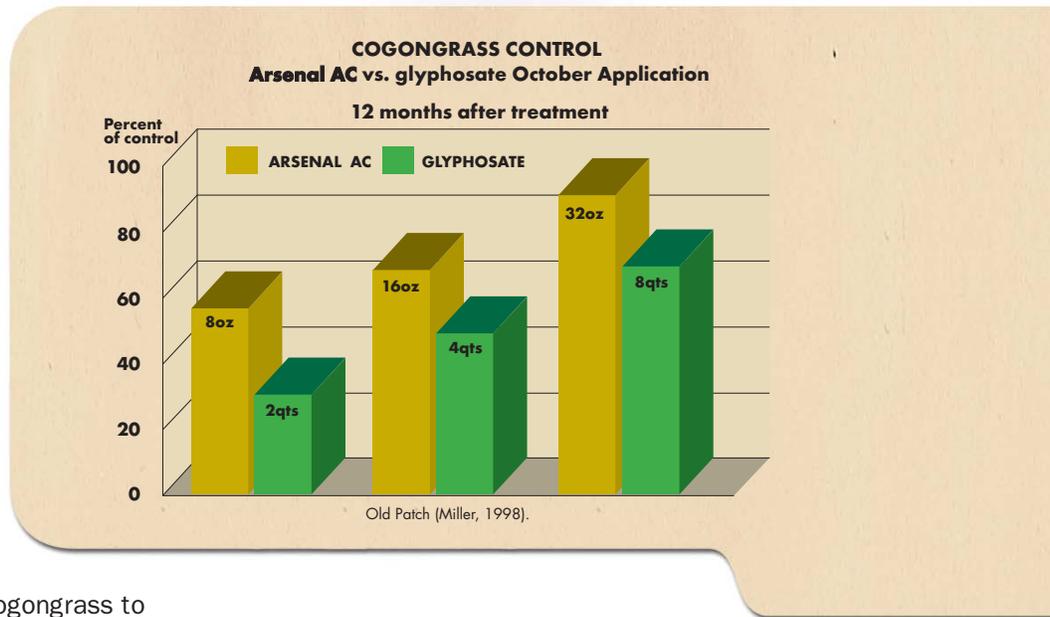
100 percent after two years. Yet, **Arsenal® herbicide Applicators Concentrate** was recognized as “the key factor – with or without glyphosate.”⁴

How Does Quality Vegetation Management™ (QVM) Work? Here’s A Simple, Two-Step Outline For One Approach:

1. Start by burning or mowing cogongrass to remove thatch and older leaves. This reduces biomass, triggers regrowth from rhizomes, and allows herbicides to be applied only to actively growing leaves, maximizing herbicide absorption into the plant. Ideally, burning should be done during the summer. If tillage is feasible, disking directly after a burn further cuts down on rhizome mass. (Be sure to clean equipment thoroughly after tilling to prevent spreading.)

2. After one to four months of regrowth, apply **Arsenal AC** 24 to 32 oz plus 48 oz glyphosate (4 lb ai/gal). A follow-up treatment using a directed spray of 16 oz **Arsenal AC** plus 1 qt glyphosate (4 lb ai/gal) will be needed in the second or third year of the control program.

Targeted Control, Enhanced Habitat.
Arsenal AC is powerfully effective – controlling



cogongrass and other undesirable species down to the roots. Plus, **Arsenal AC** works on an enzyme found only in plants. It doesn’t target wildlife or the sources wildlife use for food. When desirable native plants are freed from competition with cogongrass and other invaders, wildlife can flourish, too.

Arsenal AC is currently available and recommended for cogongrass (*Imperata cylindrica*) control within forestry sites. With **Arsenal AC**, cogongrass can be controlled with a choice of broadcast or spot treatment applications. The following information provides the necessary use site and application rate information that must be considered when selecting **Arsenal AC** for cogongrass control.

EPA approved use sites: Forestry sites including forestry roadsides and wildlife openings within forestry sites. **Arsenal AC** is not approved for pasture or hay use.

Recommended use rate: Broadcast spray – 16 to 32 fluid ounces per acre (equivalent to 0.5 to 1.0 lb ai/A). **Arsenal AC** contains 4 lb ai/gallon. Use the lower rate when applying to stands of slash or longleaf pine. Spot treatment – 0.5% spray solution by volume.

YEARS, ARSENAL AC CONSISTENTLY PROVIDED RM MANAGEMENT OF COGONGRASS.”

~ WILSON FAIRCLOTH, AUBURN UNIVERSITY

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CONTROL COGONGRASS WITH **ARSENAL AC.**

For the most effective long-term control of cogongrass, insist on **Arsenal® herbicide Applicators Concentrate.**

For more information about **Arsenal AC** or any of our vegetation management products, call **1-800-545-9525**, or visit **www.forestryfacts.com.**

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VEGETATION
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