



Get Your Site Set For Bigger Profits.

SITE PREPARATION

Professional
Vegetation
Management

 **BASF**
The Chemical Company

CHOPPER[®]
herbicide



Ready. Set. Grow.

Prepare Your Pines For Optimum Growth With **Chopper®** Herbicide.

Successful forestry professionals agree: effective site preparation before planting is a critical first step towards better yield and bigger profits.

For starters, site prep makes planting a whole lot easier. More importantly, it gives young seedlings a head start toward healthier growth by removing competition for sunlight, moisture, nutrients and rooting space. But what method of site prep works best?

Once upon a time, foresters relied primarily on mechanical methods to clear their tracts. But, for every hardwood stem cut down, multiple new stems can shoot up in its place. Plus, running heavy equipment over your land can compact the soil, contribute to erosion and delay tract recovery.

Site Prep With Chopper: Right From The Start.

A key component in **Quality Vegetation Management™ (QVM)**, **Chopper** delivers clean-sweep site prep that's more cost-efficient than traditional mechanical methods.¹ Its effectiveness is superior, too. **Chopper** controls tough hardwoods like hickory, red oak and red maple, and troublesome species like yellow poplar, black gum and sweetgum.

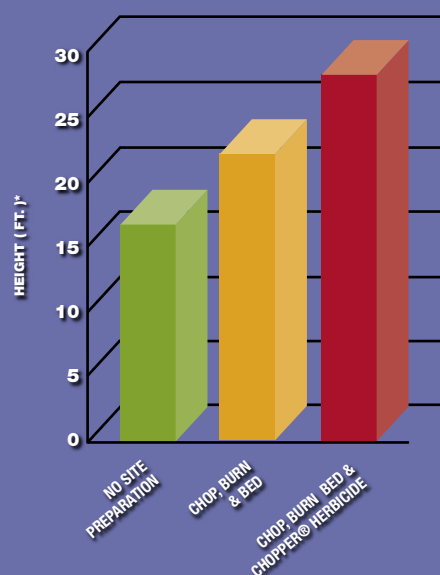
Plus, **Chopper** controls targeted species right down to the roots – and continues working after application, keeping competitors at bay long after seedlings are planted.

Best of all, you can apply **Chopper** from full leaf-out in early spring – April to June when applicators and equipment are most readily available – all the way through leaf-drop in the fall, with or without burn.²

1. M.R. Dubois, T.L. Straka, S.D. Crim and L.J. Robinson. 2003. Costs and Cost Trends for Forestry Practices in the South. Forest Landowner 34th Manual Edition Volume 62 Number 2.

2. Before June 15, use oil – see guarantee.

MEAN HEIGHT AT AGE 8 FOR 20 SITES



Treating your site with **Chopper** is easy. **Chopper** can be applied either by ground or air. And **Chopper** provides one of the best guarantees in the business – five years with just 48 ounces per acre.

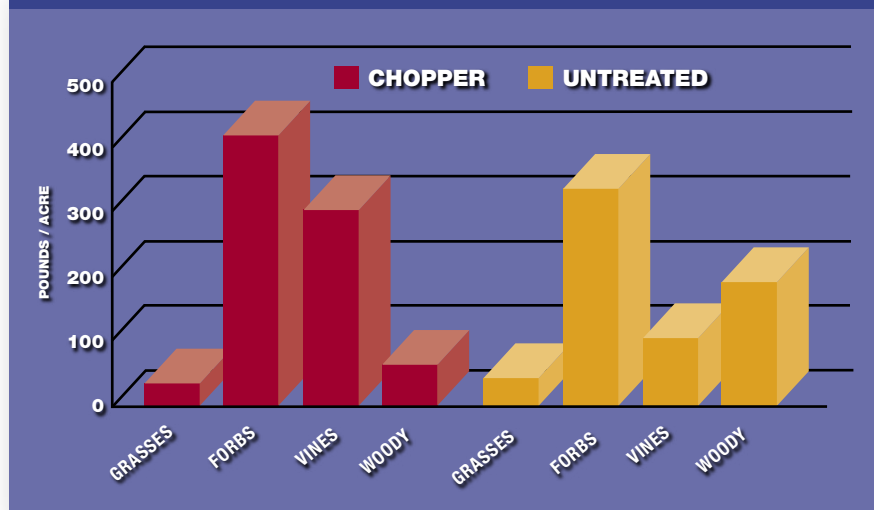
CHOPPER[®]
herbicide

Tough On Competitors.

Applied in an oil emulsion, **Chopper® herbicide** is more rainfast than any other herbicide in the industry – and is readily absorbed by target species without needing rain to activate it. The oil emulsion dissolves cuticle wax and cutin barriers, increasing herbicide absorption and effectiveness.

The active ingredient in **Chopper** is absorbed through the plant's leaves, stems and roots. Then, it binds with an enzyme found only in plants, not humans, mammals, birds, fish or insects.

SHIFTS IN SPECIES COMPOSITION: DEER FORAGE COMPONENTS



And **Chopper** doesn't target the sources wildlife use for food – like legumes, forbs and blackberry. When wildlife-favored plants are freed from competition with woody brush and grasses, wildlife can flourish, too.

So while you're giving your pines a healthy head start, free from growth-inhibiting competition, you're also getting a great start on outstanding wildlife habitat and enhanced biodiversity. And that can pay off in aesthetic appeal for nature-lovers, hunting leases and other recreational benefits that add to your bottom line in the years before and between harvests.

Site Prep With Chopper: Benefits You Can Bank On.

- **Cost-Effective.** Site prep with **Chopper** is more cost-efficient than traditional mechanical methods.
- **Long-Term Control.** **Chopper** controls target vegetation down to the roots.
- **Broad-Spectrum Control.** Grasses, broadleaf weeds, shrubs and hardwoods.
- **Greater Flexibility.** Apply **Chopper** at any time you choose from full leaf-out in spring to fall leaf-drop.²
- **Easier On Your Land.** Less risk of soil compaction or erosion.
- **Better Seedling Survival Rates and Earlier, Faster Growth.** Thanks to reduced competition for sunlight, moisture, nutrients and root space.
- **Lower Fire Risk.** Thanks to reduced fuel loads.
- **Enhanced Wildlife Habitat.** **Chopper** won't impact wildlife or wildlife-preferred food sources.
- **Performance: Guaranteed.** **Chopper** is backed by the BASF Performance Guarantee.

Chopper gives you the best site preparation

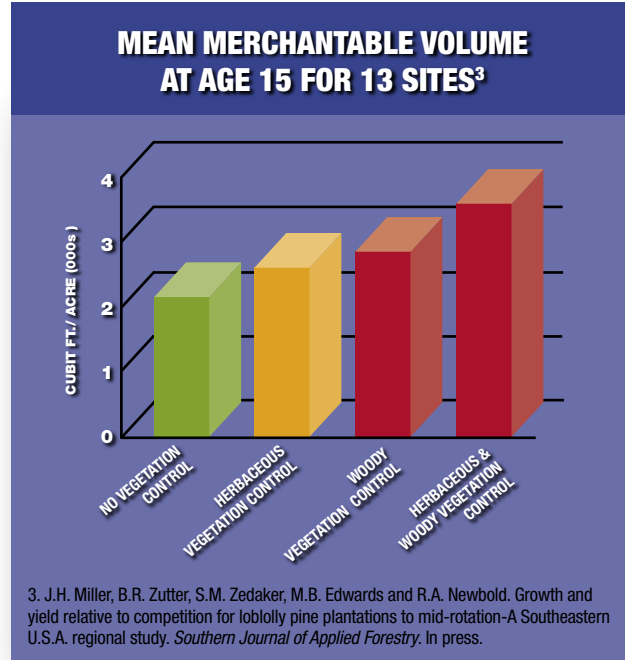
The Full Treatment: Life Cycle Management With Chopper® Herbicide and Arsenal® Herbicide Applicators Concentrate (Arsenal AC).

Your best bet for optimum growth in pines and profits? Site preparation with **Chopper** followed by scheduled applications of **Arsenal AC** to control competing vegetation throughout the forest life cycle.

- **Site Preparation with Chopper** for the most effective site clearance and long-lasting, broad-spectrum residual control of competing vegetation. The result: healthier stands, greater timber yields and earlier harvest.
- **Herbaceous Weed Control with Arsenal AC** in the critical first and second seasons.
- **Pine Release with Arsenal AC** to boost merchantable volumes by controlling hardwood brush in pine stands up to 10 years old.
- **Mid-Rotation Release with Arsenal AC** to clear hardwood brush halfway through pine stand rotation for improved real return on investment.



One year after site prep treatment, the pines at the right of the photo are thriving. To the left, a controlled burn was done (no herbicide treatment) and the pines are not as healthy.



Foresters inspect this bedded site, which received a site prep treatment before planting.

ation for healthier, faster timber growth.





Quality Vegetation Management™
Making The World a Better Place.

QVM is a set of principles that creates and sustains healthy habitats through professional, ethical and responsible practices.

Learn more at:
www.vanswers.com/QVM



The Clear Path To Growing Success.

For more information about any BASF vegetation management product, contact your nearest BASF ProVM specialist at **1-800-545-9525**, or visit www.vanswers.com.

Always read and follow label directions.
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CHOPPER[®]
herbicide

Chopper[®] Herbicide
Helps Enhance Wildlife
Habitat for Soterra, LLC.

Timber Company Improves Hunting Lease Income

Professional
Vegetation
Management

 **BASF**
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It takes much more than a decent tract of land and good intentions to properly practice silviculture (the management of forestland to meet diverse needs), particularly if the land is used for hunting. Soterra, LLC has transformed nearly 1,000 acres of hardwood brush-infested forestland in southeastern Louisiana into a healthy forest teeming with wildlife and generating significantly higher income for the company. Soterra's strategic and intelligent approach to forestland management provides a valuable lesson.

In 2000, Soterra purchased 63,000 acres of timberland in Louisiana. Realizing the potential value of this land for wildlife recreation, Steve Stewart, regional manager of Soterra's Louisiana and Mississippi forestlands, suggested implementing a five-year hunting lease program on nearly 1,000 of the acres.

From his 15 years of forestry experience, Stewart knew that without a proper forestland management plan in place, the 1,000-acre tract in

Louisiana, like all pineland in the southeastern United States, could easily be overrun with invasive hardwoods such as privet, sweetgum and wax myrtle. If left untreated, these species drive away desirable wildlife by choking out native vegetation and wildlife-preferred food sources.

Enhancing Wildlife Habitat

Working closely with Vick Nickels, BASF Professional Vegetation Management (ProVM) sales specialist, Stewart learned that through a combination of applying **Chopper[®] herbicide** and prescribed burning, Soterra could control undesired plant species in the hunting land and quickly enhance the wildlife habitat.

"The **Chopper** and prescribed fire combination provides us a long-term return on investment in terms of wildlife abundance," Stewart said. "By controlling undesirable weeds and brush, desirable plant species thrive and animals can easily find nutritional vegetation — increasing the value of the hunting land. It's as simple as that."

To improve sightlines for hunters and provide a more natural edge and cover habitat for wildlife, Soterra organized the hunting land according to a **Hub-and-Spokes™** system. This consists of existing half-acre old log-loading areas – the hubs – in the middle of pine stands with skidding lanes – the spokes – radiating out from each hub. Soterra then used a skidder to treat the understory in the surrounding pine stand 30 feet on each side of the spoke with **Chopper® herbicide** to control hardwood brush and provide a more open forest canopy.

In the spring, a prescribed burn followed the herbicide treatment to remove the thick litter layer, dead vegetation such as leaves and pine straw, which builds up over time on the forest floor and chokes out plant communities that are beneficial to wildlife. Clearing the litter and hardwood brush layers allowed sunlight to reach the forest floor so desirable plants could re-colonize quickly. The company then planted food plots in the hubs to create additional vegetation attractive to whitetail deer and other wild game.

The BASF **Hub-and-Spokes** system has been a significant success, with a dramatic increase in the desired wildlife population and a higher demand for leases by hunters. Soterra expects that the **Hub-and-Spokes** system will remain a permanent and productive wildlife viewing and hunting resource throughout the land's rotation.

"These spokes are perfect to bring the timber out," Stewart said. "And they benefit our hunters by providing shooting lanes and easy viewing of wildlife. Additionally, the spokes create an edge effect so wildlife feel more secure with nearby cover."

Soterra also discovered it could enhance bird diversity on the land, which is now abundant with birds such as mourning doves, dunlins, cardinals and yellow-billed cuckoos. In addition, with abundant

sunlight reaching the forest floor, flowers grow and attract butterflies. Butterfly species such as pipevine swallowtails, cabbage whites and gray hairstreaks all find refuge in this carefully managed forestland.

Maximizing Revenue and Results

Thanks to the use of **Chopper** and the implementation of a **Hub-and-Spokes** system, Soterra has increased the value of the land, as well as their annual revenue. Since employing this approach, the lease rate on the hunting land has increased 400 percent.

Stewart says Soterra is pleased with how BASF **Smart Herbicides™** have helped the company maintain its forestland and permit increased wildlife recreation activities. He believes that without using **Chopper** in the understory, invasive hardwoods would have easily overrun the land and greatly diminished its value.

"Proper forestry and wildlife management practices are dynamic and ever-changing," Stewart said. "You can't use the same techniques you used fifty years ago, because they don't always work. At Soterra, we do whatever it takes to best manage the land. BASF is in sync with what we are trying to accomplish, both with timber production and wildlife recreation."

For more information on how **Chopper** can improve your forestland, call **1-800-545-9525**, or visit www.vmanswers.com.

Always read and follow label directions.

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