



# Turn Up The Volume.

MID-ROTATION RELEASE

Professional  
Vegetation  
Management

 **BASF**

The Chemical Company

**ARSENAL**<sup>®</sup>  
herbicide



**The need for brush control doesn't end when you've established your stand. In fact, mid-rotation release treatment of 10- to 15-year-old pines with Arsenal® herbicide Applicators Concentrate (Arsenal AC) can boost growth rates, improve timber quality, and pay off in a potential annual rate of return of more than 11% over 10 years.**

Even in older stands with a closed pine canopy, understory brush and other competitors for moisture and nutrients can undercut pine growth – and profits. **Quality Vegetation Management™ (QVM)** with **Arsenal AC** keeps competitors at bay throughout the forest life cycle, yielding big potential increases in both merchantable volumes and timber value. In one study, **Arsenal AC** cut hardwood competition in a 14-year-old loblolly stand by 76% – and increased pine volume by 20% after six years.<sup>1</sup>



*A clear understory, achieved through a treatment of **Arsenal AC** followed by controlled burning, allows sunlight to reach the forest floor so food plants for wildlife can flourish.*

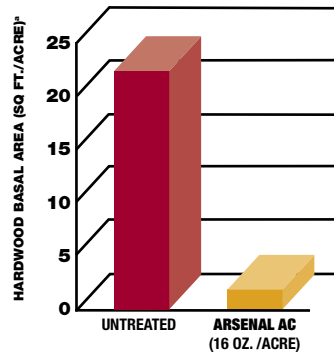
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## Arsenal AC used during mid-rotation eliminates hardwood competition and increases the value of your stand.

1. H. E. Quicke and P. J. Minogue, 2001, Sixth-year responses following operational scale mid-rotation release with Arsenal AC: The 1994 Waverly Hall Study. BASF Forestry Research Report 2001-03.



## A Clearer Path To Land Value.

By clearing low quality, hardwood brush – without targeting the legumes wildlife use for food – **Arsenal AC** makes your land more accessible and more attractive to hunters, recreationists and wildlife. As every forest landowner knows, that's a clear path to increased income-generating land value while you wait for harvest.

## The Perfect Solution.

**Arsenal AC** gives you broad-spectrum, long-term control of low-quality hardwood brush, broadleaf weeds and grasses – with outstanding pine tolerance. It can even control the toughest species, like: sweetgum, purple loosestrife and cogongrass. The result? A vegetation control solution like no other.

## The Full Treatment: Life Cycle Management with Arsenal AC.

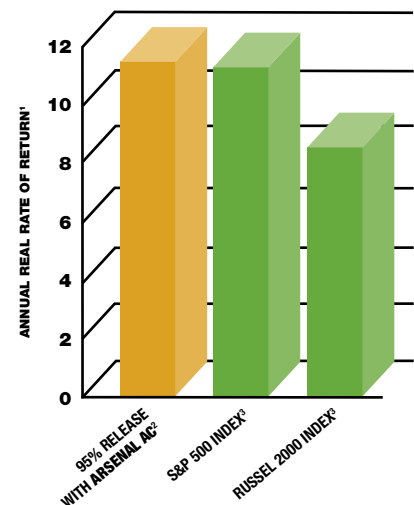
Count on **Arsenal AC** to control competing vegetation throughout the life cycle of your pine stands.

- **Herbaceous Weed Control** in the critical first and second seasons.
- **Pine Release** boosts merchantable volumes by controlling hardwood brush in young pine stands. (Please refer to label.)
- **Mid-Rotation Release** clears hardwood brush halfway through pine stand rotation, for faster growth, bigger pines and better timber at harvest.

## Arsenal AC at Mid-Rotation: Benefits You Can Bank On

- **Increases pine volume**  
*by as much as 20% over six years.*
- **Increases pine diameters**  
*for higher value timber.*
- **Significant return on investment.**  
*Average real rate of return 11% per year.*
- **Controls the toughest competitors.**  
*Hardwoods, brush, waxy species, broadleaves and grasses.*
- **Improves accessibility and land value**  
*for hunting and recreation.*
- **Lowers fire risk.**  
*Thanks to reduced fuel loads.*
- **Pine tolerance.**  
*Arsenal AC selectively targets competing vegetation and provides outstanding pine tolerance when used according to label directions.*
- **Helps enhance wildlife habitat.**  
*Arsenal AC increases plant diversity and doesn't target the legumes wildlife use for food.*

## Arsenal AC Mid-Rotation Release Treatment Pays Off



1. The real rate of return is the nominal rate minus the inflation rate.  
 2. Fifteen years after treating a 10-year-old stand.  
 3. 1986-1996, adjusted for inflation.  
 \* Source: J.P. Caulfield, B.D. Shiver, L.V. Pienaar, and H.E. Quicke. 1999. Estimating Financial Returns from Mid-Rotation Release in Coastal Plain Loblolly Pine Plantations. *Southern Journal of Applied Forestry* 23 (2): 94-99.





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](http://www.vanswers.com/QVM)



# Arsenal AC: The One To Grow On.

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](http://www.vanswers.com).

Always read and follow label directions.

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