



# Redstone Arsenal, U.S. Army Post

HUNTSVILLE, ALABAMA

## *Shortleaf pine silvopastural management*

### Background

Development of a shortleaf pine silvopasture at Redstone Arsenal (RSA) Army Post was used to: restore a once-common native species to the site; explore agroforestry management in the region; and fulfill multiple management objectives desired by RSA (timber, wildlife, water quality, recreation, and cultural resource preservation).

### Management Activities

In 2009, plans were made to design three silvopastures at RSA, each encompassing 120 acres. The proposed silvopastural sites were former agricultural fields under cultivation for several decades and used to produce row and forage crops. It was suggested by project managers that developing a silvopasture on a previous agricultural field, versus a clearcut site, may lead to less woody competition in the early years of establishment. In this same year, all the sites were prepped with prescribed fire and a site prep herbicide (Oust Extra™).

In the winter of 2010, site vegetation was chopped with a bush hog and shortleaf pine bareroot seedlings were machine-planted (January-February) in double rows, with 6'X8' spacing and 40 foot alleys between double rows. The initial planting resulted in a 45% survival rate, so in 2011 more seedlings were planted to replace the ones that died.

Four to five years later, in 2015, saplings reached 10-12 feet tall and the understory was managed for hay production.

Future management activities include thinning and burning after 18 years and pruning limbs up to 16 feet (up to age 20). The silvopastures will continue to be managed for hay as long as the financial return is better than an ag lease for grazing animals, though this may be considered.



*Shortleaf pine rows in the silvopastural management system at Redstone Arsenal are displayed in this image. Credit: Redstone Arsenal, US Army Post*



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**Shortleaf Pine Management Area (SMA)** fact sheets highlight regional shortleaf pine management or research projects. Please inquire with project contact/ partners to learn more about a specific management area. For general questions concerning SMAs or the [www.shortleafpine.net](http://www.shortleafpine.net) website, please contact: **Holly Campbell**, [hcampbell@sref.info](mailto:hcampbell@sref.info)

The Shortleaf Pine Initiative represents a broad range of federal, state, and private agencies and organizations currently working to promote shortleaf pine ecosystem restoration. For more information about shortleaf restoration or the Initiative, please visit: [www.shortleafpine.net](http://www.shortleafpine.net)

Seedlings encountered minor tip moth damage and deer browse (contributed to seedling mortality because deer pulled seedlings out of the ground). Redstone questions whether the planting configuration will yield quality saw timber, a major incentive to landowners to experiment with silvopastures.

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#### Project Partners

Redstone Arsenal-U.S. Army Post, Auburn University

#### Project Contact

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