SOUTHEASTERN U.S. SITES

The attractive flowers and foliage of *Lespedeza virginica* (Slender Lespedeza) add color to native meadows and its bountiful seeds feed game birds.

SOUTHEASTERN U.S. SITES INCLUDE regions within Alabama, the Carolinas, southern Virginia, Georgia, Mississippi, and Florida. Sites in the Southeast typically have sandy or clay-rich soils subject to drought. These characteristics necessitate careful attention to timing and preparation. Examples: Coastal Plain soils, Piedmont, and sandy soils.

A Florida meadow.

HABITAT:
Southeastern sites have a longer growing season; therefore, plants native or adapted to the region should be selected; planting from November to March is ideal (when possible) as temperatures are adequate and rain events are frequent; if irrigation is available, planting can continue into the later months of spring and early summer.

FERTILITY:
With the exception of organic matter, natural fertility is generally adequate. Check soil pH and, if necessary, add lime to achieve a pH of at least 6.0.

SEEDING METHOD:
Drill seeding is recommended; however, broadcast seeding is an alternative preceded by rolling or tracking.

SITE PREPARATION

If the site was previously a lawn or crop field to which herbicides were applied, it is important to allow the appropriate time interval for the herbicide residues to break down prior to planting. Some herbicide residues can prevent seedlings from germinating.

Competition from invasive or undesirable vegetation is the most limiting factor in upland meadow preparation. Prior to planting, all such vegetation must be fully controlled. Typical control strategies include repeated tilling, smothering with black plastic, or herbicides. While any of these methods may control existing weeds, they will not kill all weed seeds lying dormant in the soil. Seeds of such species as velvetleaf and pokeweed may germinate many decades after the species last flowered on the site.

When using the tillage strategy, a site is disc harrowed every two weeks for one to two months. The underlying principle of this process is that the root system of perennial species will be worn out to the point of killing the species. In addition, tillage will stimulate germination of some dormant weed seeds that will be killed with subsequent tillage. Planting should not take place until perennial species are completely killed.

Black plastic may also be used to kill weeds. It may be laid across tilled or untilled soil and anchored down by burying the edges in soil or laying boards or bricks across the surface. This strategy should be utilized during a growing season when the intent is to fall plant the same year or spring plant the following year.

Baptisia albescens (Spiked Wild Indigo) in a South Carolina pine flatwoods.

Use of an approved herbicide, such as glyphosate (Roundup® or Rodeo®), by a licensed spray technician is the most common and least time-intensive method for the control of existing vegetation. Since herbicides are most effective on actively growing plant tissues, they are very effective on new growth in the spring. Spraying should begin when growth reaches 6". A follow-up spray application one to two weeks later will address skips or persistent species. If substantial plant tissue remains on the surface following a full kill by herbicides, a close mowing, tillage, or burning may be necessary to achieve good seed-to-soil contact.

To prevent reinfestation of some weed species, use of an appropriate selective herbicide in conjunction with a seed mix tolerant of that herbicide may be necessary.

SANDY SOILS

Sandy soils behave differently under cultivation than those containing clay. It is essential to plant seed 1/2" deep into a firm seedbed with a seed drill if possible (Eastern Gamagrass should be planted 1" deep). Truax and other similar drills can accommodate a variety of seeds and have been proven effective in the Southeast. High sand content in these soils makes broadcasting seed less effective due to poor seed-to-soil contact. Seedbeds should be firmed to where one does not sink past the sole of his/her shoe when walking the prepared site. Soil amendments may be added as necessary to maintain proper levels of organic matter and achieve a pH of at least 6.0.

CLAY-RICH SOILS

Without topsoil, soils containing high clay levels can be as hard as brick and pose a formidable challenge for successful cultivation. These soils are extremely low in organic matter which allows the small clay particles to settle and become compacted after a rain event. They are often iron-rich, leading to a distinctive red color. To prevent the clay from hardening after a rain from which seedlings cannot emerge, increase soil organic matter by incorporating 1"-2" of well-decomposed organic matter or compost and working it into the top-most soil prior to planting using a tiller, harrow, disc, or similar implement. Cultivating the top 6"-8" of soil will aid in root development of emergent seedlings and allow some percolation of rainwater that would otherwise run off the surface with little to no infiltration and carry the seed away with it. These initial preparations are critical for the successful establishment of native plants in this challenging soil. Since soil compaction is minimized, drilling seed 1/4"-1/2" deep is the preferred planting method. Even with additional organic matter, this clay-rich soil will compact easily; therefore, operating heavy equipment over the planted site should be avoided.

Quail-friendly planting featuring *Chamaecrista fasciculata* (Partridge Pea), *Panicum anceps* (Beaked Panicgrass), *Rudbeckia hirta* (Blackeyed Susan), and *Schizachyrium scoparium* (Little Bluestem).

GROWING SEASON MAINTENANCE

Refer to Upland & Meadow Sites maintenance, p 19.

When spot spraying in soils with low organic matter and high sand levels, begin with lower than recommended concentrations of herbicides for weed control to avoid valuable crop burnout. Chemical breakdown of many herbicides is achieved via soil microbes that generally feed off organic material. With less organic material available in the soil, there will be a smaller population of microbes that may result in longer periods of exposure to the active ingredients in herbicides.

SOUTHEASTERN US SITES SEED MIXES

ERNMX-169	Southeast Annual & Perennial Wildflower Mix
ERNMX-187	Southeastern U.S. Roadside Native Mix

THESE MIXES ARE USED IN WELL-DRAINED SOILS WITH FULL SUN AND PROVIDE FOOD AND/OR COVER FOR WILDLIFE. MEADOW AND WILDFLOWER MIXES PROVIDE FOOD FOR INSECTS, INCLUDING NATIVE POLLINATORS.

Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.