

Soil Improvement With Lespedeza

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The fact that lespedezas will improve the soil on which they are grown, so that subsequent crops of small grain, corn and cotton will be larger than before lespedeza was planted, is well established. The degree of this improvement as measured by increased yields will depend upon the way the lespedeza is handled and on soil and climatic conditions. When the lespedeza is cut for hay, increases of from 50 to 100 per cent in the yields of corn and cotton have frequently been recorded in North Carolina. The best practice appears to be to grow lespedeza for 2 or 3 years, utilizing it for hay or pasture, and to follow with 1 or 2 years of seed crops.

When land has become so worn as not to be worth cultivating it is often "turned out." Lespedeza comes in, but it takes several years to cover such poor ground through natural spread. A better plan is to disk and level after the last crop of corn or cotton and seed down to lespedeza. Superphosphate or basic slag, 300 to 400 pounds per acre, will help the lespedeza materially, and the lespedeza can be used for hay or pasture, or, if the farmer has no use for it, left on the ground to reseed and enrich the soil for a year or two.

Three species of lespedeza—two annual and one perennial—are of interest to the farmer. The annuals are (1) the common (*Lespedeza striata*), with two improved varieties, Tennessee No. 76 and Kobe, and (2) the Korean (*L. stipulacea*), with one extra early variety. The perennial is *L. scircea*.

The annual lespedezas are grown extensively in the South, for hay, pasture, soil improvement and seed production.

Culture

The culture of lespedeza is simple. The seed is best sown on winter grain about the middle of March in the latitude of North Carolina, and somewhat earlier farther south and later farther north. If seeding is done too late for the freezing and thawing of the ground to work the seed under the surface, the field should be lightly harrowed after seeding. If 25 to 30 pounds of seed per acre is used a hay crop may be expected that, fall, provided soil and moisture conditions are suitable, or good grazing may be had beginning soon after grain harvest and lasting until frost. The secret of success with lespedeza is to get a full stand early. With a full stand, adverse conditions are less harmful than with a thin stand.

Soil And Fertilizers

Lespedeza will grow on poor, worn soils and on soils too sour to grow clover without the use of lime. On very sour land lime is beneficial, but except on such soils lime has not proved necessary. Phosphates have caused increased yields and should be used unless the soil is good, in which case they are not necessary. Moisture is usually the controlling factor in growth. While lespedeza, especially Korean, have shown remarkable ability to live on heavy soils during periods of severe drought, not much growth is made. For a growth tall enough to cut for hay, moisture is essential. On dry sandy soils lespedeza may survive, but the growth is insignificant.

Lespedeza For Hay

The best crops of hay are secured on moist bottom lands. On such soils the difference in growth and yield between common lespedeza and the improved varieties is less than on upland. On bottom land from 2 to 4 tons of hay to the acre may be expected. On good upland the improved sorts will outyield common lespedeza.

It is generally believed that with a good stand 4 inches of lespedeza above the cutter bar will yield 1 ton of hay per acre. The Kentucky Agricultural Experiment Station says of Korean that when a good stand is 8 to 9 inches high a ton of hay may be expected; when 12 to 14 inches, 2 tons, and when more than 24 inches, 4 tons of hay may be expected. At any rate, the yields of hay are surprisingly heavy.

When cut early, that is, before bloom when tall enough to make a ton of hay per acre, and if not cut too short, say 3 to 4 inches from the ground, lespedeza may be expected to make new growth and to make a good seed crop in addition to the hay. The best hay is made when the lespedeza is not more than 15 inches high. When taller, it is more stemmy, with a smaller proportion of leaves.

To make the best hay lespedeza should be cut when in full bloom or shortly after. When it is left until a considerable part of the seed is ripe the resulting hay is of poorer grade. Lespedeza contains less moisture than alfalfa or red clover, is consequently more quickly cured, and the field-cured hay contains somewhat more dry matter than similarly cured alfalfa or clover hay.

When the lespedeza is from 6 to 10 inches high cutting may be done in the morning; the hay should be windrowed soon after being cut, and in good weather it may be hauled to the barn the next day. When the lespedeza is more than 15 inches high it should lie in the windrow 2 or 3 days.

Most lespedeza hay is consumed at home or in the neighborhood where it is produced. No grades for lespedeza hay have been established, and there is no general market. Good lespedeza hay falls but little short of alfalfa in protein and is even superior in carbohydrate content. Korean lespedeza hay has been used in Missouri to prepare fat cattle for stock shows and has given good results.

Lespedeza For Pasture

Lespedeza is more widely used for pasture than for hay. Throughout the southeast lespedeza of one variety or another is or should be an ingredient of every pasture mixture. Lespedeza is a hot weather plant and should not be expected to provide early grazing. In North Carolina June 1 to 15 is a fair date to expect early grazing from lespedeza. Korean grows more rapidly in the spring than other lespedeza, but dies earlier, so that it is not so good for late grazing.

When cattle are grazed mostly on grass pasture it is advisable to have a reserve field of lespedeza upon which the cattle may be turned from July until frost. This will maintain gains or keep up and even increase the milk flow while resting the grass.

A good pasture of pure lespedeza may be expected to reproduce year after year as long as it is wanted. This is also generally true of grass-lespedeza pasture. The carrying capacity of a good stand of lespedeza may be roughly estimated at from 1 to 2 mature cows per acre from June 1 or July 1 to October 15 or frost, depending on the variety and location.

Timely Questions On Farm Answered

Question: How can lice on dairy animals be controlled?

Answer: A two percent solution of creolin applied with a spray pump or brush is a fairly effective measure for control. A second application should be given in about ten to fourteen days to kill any lice that hatch after first application. There are sev-

eral standard dip solutions on the market that are also satisfactory but, when using them the directions given should be closely followed.

Question: What green feeds are available for use in the poultry ration during the winter months?

Answer: Where there are no growing crops, cured alfalfa hay, lespedeza or clover hay make good greens for winter use. When fed in racks the birds will eat only the leaves and the stems can be thrown in the litter. Alfalfa leaf meal, provided it is green in color, also makes a satisfactory green feed but should not constitute more than ten per cent of the mash. This meal is much preferred to the regular alfalfa meal but neither is as satisfactory as the alfalfa hay fed in racks.

Question: What is the best temperature for hot beds in growing early vegetables?

Answer: For the cool season or early crops such as cabbage, lettuce, and onions the day temperature should be from 60 to 65 degrees. Warm season crops such as tomatoes, eggplant and peppers grow best with

Albemarle Hospital Gets State Publicity

Much publicity is given the Albemarle Hospital in Elizabeth City in the December issue of the Bulletin of the North Carolina Hospital Association. A beautiful picture of the hospital appears on the front page of the Bulletin entitled "... furthest east..."

Editorially a brief history of the hospital is given, which has recently become a member of the association. The Bulletin is widely distributed over the State, which should acquaint many with the only hospital in a block of 13 northeastern counties, and is serving a great need.

Seventeen head of pure bred Guernsey cattle were sold for \$1,325 at the recent auction held at Wilson. Eight animals were purchased by Wilson County farmers.

a day temperature of 70 to 75 degrees. The night temperature should not drop below 55 to 60 degrees. Care in ventilation will give air for the growing plants and will also regulate the temperature.

Radio Atlas Given Free By Quinn Furniture Co.

Radio fans in this section have a treat in store. The Quinn Furniture Company have received a quantity of the Philco Radio Atlas which will be given free to anyone calling at the store for it. This atlas sells regularly for 50 cents but will be given away as long as the supply lasts.

This atlas is a very attractive book, containing all stations on both long and short wave and the time each

station broadcasts correct local time. Dial numbers of stations are also listed. Made more interesting and locations of foreign stations, maps and a number of foreign radio stars, as well as information. Anyone desiring these books should call as soon as possible, as the supply is

EDUCATION BOARD

The regular meeting of Education will be held on Monday morning, January 7th.

I LOST MY BEST CUSTOMERS THROUGH RATS, WRITES J. ADAMS OF 427 MARKET STREET, TRENTON, NEW JERSEY

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