

## SOME OBSERVATIONS ON LESPEDEZA IN SOUTHERN ILLINOIS

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Lespedeza, commonly known by the name of Japan Clover, is one of the most valuable plants for forage in the southeastern part of the United States. Its wide adaptation to grazing conditions gives it a value that is hard to estimate. It will grow in open woodlands, on the poorest of upland hills, along roadsides, and in other waste places. Being a legume, it is valuable for soil improvement, and also it is relished by all classes of livestock.

Authorities seem to agree that this plant was introduced into the South Atlantic States from Eastern Asia somewhere from 1846 to 1860, the exact date being unknown.

Lespedeza has gradually spread until it occurs in more or less abundance from central New Jersey westward to central Kansas, as far north as southern Iowa, and southward to the Gulf of Mexico. It was limited to a small area in the south before the Civil War, but soon afterward was found in many parts of the South. As horses relish lespedeza, and as the seeds may pass thru the alimentary tract without being destroyed, it is probable that it was widely distributed by cavalry during the Civil War [1]. Other animals and birds may likewise have been responsible for its distribution.

Lespedeza is grown in several counties in southern Illinois. Bond County has had a few acres for six or seven years, one man having grown it mostly for seed, growing from 10 to 20 acres each year. In several other counties, including Massac, Pope, Hardin, Union, White, and Saline, the lespedeza grows naturally upon hillsides, roadsides, and open lands. In Massac County one grower has been cultivating the crop for nearly five years.

Japan Clover or lespedeza, *Lespedeza striata* (Thunb), belongs to a tribe (Hedysareae) which is characterized by the fruit not being a true legume, the pod being divided crosswise by one or more joints (*loment*) [2]. In the genus *Lesepdeza* there is one or more joints. The leaves have three leaflets, the lateral leaflets being on the side of

the leaf stalk (*pinnate*). About a dozen or more native perennial species are more or less widely distributed.

In manner of growth the lespedeza is a spreading or ascending plant with one to three sessile or nearly sessile pink or purple flowers; its height is usually from 6 to 12 inches, but on rich lowlands it is sometimes 30 inches or more.

It will reseed on the same ground year after year. The seeds are rounded to egg shaped, 0.05 to 0.07 inch long and 0.04 to 0.06 inch wide, and are green, greenish brown, amber, or black in color. They are usually sold in the pod which in turn is enclosed in the calyx. The weight is 25 pounds per bushel of seed.

Lespedeza is best seeded in the spring during late March or early April. It may be put in with oats, seeding immediately after the grain has been covered. Incidentally an excellent stand was obtained in Franklin County this spring using this method. It may also be seeded several days after the grain has germinated. On several of the out-lying Experiment Stations of the University of Illinois it has been seeded in wheat as well as in oats with equal success in securing a stand.

From 5 to 10 pounds of seed (preferably inoculated) should be sown to the acre where a full growth is desired that same season. It may be seeded early as there is no special danger from freezing as with young red clover or alfalfa, however it will not start growth until warm weather about April 1st.

Korean lespedeza best produces seed on soil of medium fertility. Increased yields of hay and seed have been obtained which show that the crop will respond to fertilizer treatment [3]. Lespedeza should be cut for seed soon after all the plants have matured and lost their green color, generally in late September and usually after one or two light frosts. Cutting too early results in low quality immature seed, but cut dead ripe there is considerable shattering.

The seed is harvested with a mower; a slotted pan attached to cutting bar saves much of the best seed. After cutting, it is placed in small shocks or stacks and threshed a few days later after it has been allowed to go thru a "sweat". Either a clover huller or a grain thresher may be used to thresh out the seed. Yields in Southern Illinois of from 100 pounds or less up to 300 pounds per acre have been obtained. The price of the seed ranges from 30 to 50 cents a pound.

Lespedeza is generally adapted to all soils in the State. It is known to grow well on acid soils, on poor yellow to red clay hill soils, and also on sandy soils. Like most other crops it thrives better on fertile soils.

The chief uses of lespedeza are for pasture, soil improvement, and seed production. It also makes fair hay. One great benefit noted for this new legume is its ability to become established on worn or abandoned land. Once it becomes established it will afford more pasturage than can be obtained from any other legume without costly soil fertilizing. The erosion of idle land may be gradually stopped by the growth of this plant.

Lespedeza can be and is being grown to advantage on many soils where production of clovers is difficult and impractical. It may be sown in small grain crops, in grass-clover mixtures for temporary or permanent pasture, or on idle and waste land not now affording any profits and yearly becoming less valuable. The wider and more outspread the trials of the lespedeza, the greater is found the range of adaptability.

#### REFERENCES

1. U. S. Dept. of Agriculture, *Lespedeza as a Forage Crop*, Farmers Bulletin No. 1143, pp. 3, 4, August 1920.
2. HUNT, THOS. F., *The Forage and Fiber Crops in America*, pp. 204, 205, 1912.
3. *Korean Lespedeza in Missouri*, University of Missouri, Coll. of Agr., Bulletin No. 280, p. 13, Feb., 1930.