KUDZU

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DESCRIPTION OF KUDZU.

Kudzu (*Pueraria thunbergiana*) is a large-leaved, woody, leguminous vine, native to Japan. It grows with remarkable rapidity (fig. 1). It thrives well in the eastern half of the United States and sur-

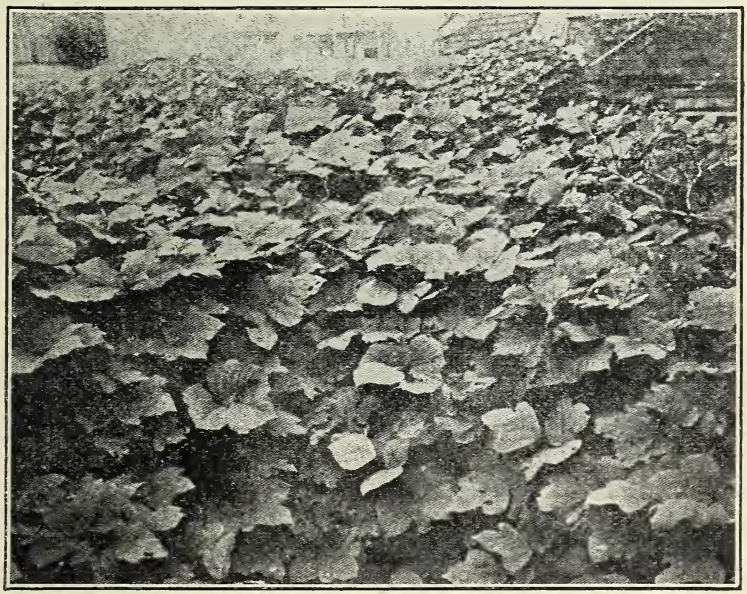

FIG. 1.—A patch of kudzu, showing the general appearance of a dense mass of the plants.

vives the winter as far north as Nova Scotia. It succeeds in various types of soil, but usually better where it is clayey than where sandy. Where the summers are warm and moist it grows with great luxuriance. Kudzu is a most excellent vine for arbors and porches, for

which purpose it is commonly cultivated in most of the southern cities, under favorable conditions of support climbing to a height of 70 feet or more. The leaves resemble in a general way those of the common bean, but they are larger, angularly lobed, and tougher in texture; the stems and leafstalks are somewhat hairy. As far north as Philadelphia the vine will bloom, but only occasionally, and then late in the summer or early in the fall. The blossoms are purple and hang in short clusters (fig. 2). The pods are thin, very hairy, and very rarely mature in the latitude of Washington, D. C.

The Japanese utilize kudzu in many ways, growing it especially on rough, rocky land or hillsides too steep to be cultivated and using it for pasture. The fiber of the stems is used largely to make a sort of

FIG. 2.—Kudzu in bloom.

cloth known in commerce as "grass cloth." Various other articles of utility, such as portmanteaus, are also made from this fiber. The thick roots are rich in starch of a high quality, which is extracted and used for human food, especially to make cakes and noodles. It is said that kudzu in former times played an important part in periods of famine. For starch making the roots are dug after the leaves fall in the autumn and before the buds burst in the spring. The Japanese also make hay from the kudzu vine, especially to feed to sick horses, as it is said that they will eat this readily when they refuse other food. It is more generally fed green.

Although kudzu has been grown in the United States for many years, at least since 1876, it is only in recent years, owing to the

work of Mr. C. E. Pleas, of Chipley, Fla., that interest has been created in it as a forage crop. Attracted by the remarkable luxuriance of the plant and the fact that horses and cows ate the leaves greedily, he cured some as hay, which he found was equally palatable to the animals. He then planted a small field, probably the first of the kind ever established in this country. Under field conditions kudzu sends out long prostrate branches which root at many of the joints, from which arise ascending twining branches, the whole making a dense mass of herbage 2 to 4 feet thick. Eventually, separate plants develop, as the prostrate runners usually die between the rooted joints. Such a field when full grown presents much the appearance of a dense crop of cowpeas, soy beans, or velvet beans.

CULTURE.

Kudzu when well established covers the field with a dense mass of herbage. Seeding is too expensive to advise and is generally unsuccessful. Setting the rooted plants in the field where they are to be grown is the best method. The plants, however propagated, are set about 10 feet apart each way in the field. They succeed best if put out very early in the spring. During the first season the trailing runners cover the ground; the second season good crops are secured, but usually the largest crops are not obtained till the third season and subsequently. A crop of corn, soy beans, cowpeas, or peanuts can be grown between the rows of kudzu during the first season and thus avoid losing the use of the land. As kudzu is a long-lived perennial, it is advisable to plant it only where the field can remain in this crop for several years. Young plants are sometimes severely injured by rabbits.

Seed.—The seeds of kudzu do not germinate very well. If used, they should be planted in a well-prepared seed bed and the plants transplanted very early in spring after they are well rooted.

Cuttings.—Kudzu may be propagated by cuttings, but under field conditions a large percentage fails, so the method can not be recommended. The best success with cuttings has been secured by using well-ripened wood and setting out very early in the spring.

Transplantings.—A new field of kudzu is best established by the transplanting of well-rooted plants.

GRAZING.

Kudzu may be utilized as pasture, but should not be grazed too heavily; two fields should be provided, to graze alternately. Some farmers allow the crop to grow until the dry season of the fall, when other pasturage is likely to be scant. There is some evidence that continuous light grazing will give more feed than alternate heavy

grazing. The crop is best pastured by cattle, as hogs are inclined to dig out and eat the starchy roots; indeed, hogs may thus be used to eradicate a field of kudzu, when this becomes desirable.

SOILING, OR GREEN FEEDING.

Kudzu is excellent for soiling, as was shown by the experience of the Louisiana Agricultural Experiment Station. During an extremely dry period the only green forage available was furnished by the kudzu fields.

HAY.

Some fields in northern Florida after becoming well established have yielded three cuttings of hay a season, and yields as high as 10 tons per acre have been reported. In other fields, the total yield has been smaller than that of velvet beans. At Arlington Farm, Va., kudzu was harvested and cured in the same manner as cowpeas and an excellent quality of hay obtained. Curing frames were used also, and if properly cocked kudzu hay sheds rain without the use of any topping material. In fact, some of the hay was left in cocks all winter, and when opened the following spring was in excellent condition; only the outside was brown and weathered, the forage within being of a bright-green color. Kudzu can be cut readily with a mower. The hay cures more easily than most legumes, as the leaves are less juicy.

The first mowing of a field, however, is sometimes difficult, as the first crop is more tangled than succeeding ones. A good device to use in very tangled crops is an old scythe blade fastened vertically to the end of the cutter bar. The first crop produced is also likely to be difficult to rake, as the trailing stems along the ground are still strong; therefore it is often better to use a fork and make piles or rolls not too large to pitch on to a wagon. There is practically no shedding of the leaves in curing.

FEEDING VALUE.

Chemical analyses indicate that kudzu is very nutritious, being comparable to clover and alfalfa. The leaves, however, are considerably tougher. Horses, cows, and sheep eat the green leaves readily, as well as the hay. The actual value of kudzu as a feed, either for meat or for milk production, remains to be determined by experiment, but there is little doubt that it is high.

SUGGESTIONS.

In view of the limited experience with kudzu, it is wisest first to make an experimental planting of a small area. The plant will probably succeed nearly everywhere in the eastern United States, but it

is doubtful whether it will prove to be profitable on high-priced land. If plantings are made, the kudzu must occupy the land for a period of years in order to be profitable.

The Japanese plant it extensively on steep slopes and other untillable land, using it mainly for pasturage. In this country little success has thus far been secured by planting on uncultivated land, but there is need for many more trials of this sort.

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