

field pea. Analyses of the hay made at the Michigan station showed 27 per cent crude protein. The growth of the plant at first is slow, and it is recommended to plant the seeds in beds, from which they may be transplanted at the beginning of the second season to the place they are to occupy in the field. Several cuttings may be taken each season in favorable localities, and the average life of a field is from fifteen to twenty-five years. In this country the best results have been obtained with the flat pea in California, in the arid Southwest, and in the Southern States. The hay is relished by domestic stock of all kinds, and on account of its highly nutritious character it is of much value for soiling purposes. It is of especial importance as a forage plant for arid regions, provided the lands can be irrigated. When once fully established it holds the ground for many years. Its root system is somewhat similar to that of alfalfa, inasmuch as it will not thrive on lands which are undrained or where the ground water stands within less than 10 or 15 feet from the surface. When once its roots have penetrated into the subsoil the plant will withstand the hottest and driest summer. On rich soil the growth is often 4 or 5 feet high." (*Jared G. Smith.*)

**1462. LATHYRUS PRATENSIS.****Meadow pea.**

From France. Received through Mr. W. T. Swingle, December, 1898. (2 packages.)

"A prostrate perennial, native to and cultivated in the colder portions of Europe and Asia. The yield is quite large. It can be utilized for sheep pasturage, the bitter foliage not being relished by other stock. Suited for cultivation in alpine regions." (*Jared G. Smith.*)

"Perennial, trailing, proposed as forage, nowhere used because of the extreme difficulty of obtaining the seed, which is very scarce and difficult to gather. It succeeds in dry or moist and even in wet soils, but these must be of good quality." (*Vilmorin.*)

The seed weighs 58 pounds per bushel.

**1463. INDIGOFERA TINCTORIA.****Indigo.**

From France. Received through Mr. W. T. Swingle, December, 1898. (8 packages.)

"A leguminous plant, cultivated as an annual for the production of dyestuff. It was grown very extensively in colonial times and early in the present century in Virginia, the Carolinas, Georgia, and Louisiana, and it would doubtless grow well in those States now, but it is not probable that its cultivation would prove successful in competition with the synthetic production of indigo and its production from plants in India and Venezuela, where two or three crops may be cut each year. Seed should be sown in April or early in May, and the plants should be cultivated during the early part of the summer and mowed in August or September." (*L. H. Dewey.*)

The seed weighs about 67 pounds per bushel. It is sown in drills at the rate of 3 to 5 pounds per acre or broadcast at the rate of 11 to 14 pounds.

**1464. IRIS.****Iris.**

From France. Received through Mr. W. T. Swingle, December, 1898. (4 packages.)

"Krishum du Kashmyre."

Received as "*Iris pabularia*," a name not yet verified.

"A curious plant, belonging unquestionably by its flowers and seeds to the genus *Iris*, but furnishing a remarkable abundance of delicate green leaves resembling those of a grass. It is used about Kashmyr as a forage, litter, and fiber plant. It does not seem to be an object of culture in the country of its origin any more than in Europe." (*Vilmorin.*)

The seed, which is produced abundantly, weighs 81.2 pounds per bushel.

**1465. CENTAUREA JACEA.****Meadow knapweed.**

From France. Received through Mr. W. T. Swingle, December, 1898. (4 packages.)

"Jacée des prés." "Chevalon."

"Perennial, a suitable plant for aftermath in elevated meadows, suitable to enter into natural and artificial mixtures. Its presence among the herbage is considered an indication of good quality. The stem and leaves contain a yellow coloring