

ALTERNATIVE GREEN MANURE PLANTS

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NEW leguminous plants are frequently tried on the Experiment Station, Peradeniya, and though their growth and behaviour may be satisfactory they may appear to have no special claim to be considered superior to the better known plants in general use for the purposes for which the new plants appear suitable. The word "new" in this connection must be taken to include plants not widely used as green manure or cover plants in Ceylon.

Every now and then, however, an estate superintendent reports that he sets a high value on a plant which possibly has not appeared at Peradeniya to have any special merit and has not attracted any widespread interest. It may be in some cases that the plant in question is especially suitable for the particular conditions found on that estate, or it may be that the superintendent has taken a personal fancy to the plant! In any case it is always a good thing to have a second string to one's bow and to know that there are serviceable alternatives to the plants commonly used. The following plants appear to have some promise, and seed is available in limited quantities from the Experiment Station, Peradeniya, or from the Central Seed Store, Peradeniya. It may be mentioned that the uses of all these plants are fully discussed in Section II of the Manual of Green Manuring which is awaiting publication. Multiplication of seed of most of these plants would be an easy matter should a demand arise.

TREES

Cassia didymobotrya.—This small leguminous tree has given satisfaction at least to two estates in Dimbula. It is easily propagated from seed, and furnishes a good weight of loppings which are rich in mineral constituents. At Peradeniya growth is more rapid and apt to be straggly. In any case young plants should be staked.

Derris microphylla.—This is now a very popular shade tree for tea and coffee in Java. It is suitable only for mid and low-country. It is reported to grow rapidly, stand wind well, and to be immune to a considerable extent from pests and diseases. The tree is reported to be giving satisfaction on Sirikandura Estate, Matugama. Seed was recently imported by the Central Seed Store, Peradeniya.

Dalbergia assamica.—This tree which gives a light shade and considerably resembles *Albizzia moluccana* has made very rapid and healthy growth at Peradeniya.

BUSH PLANTS

Crotalaria brownei.—It is not claimed that this plant is superior to *Crotalaria anagyroides* or *C. usaramocensis*, but recent trials show vigorous growth and the possibility of a useful supply of green material in the young stages. A limited quantity of seed is available.

Desmodium cephalotes.—This indigenous plant has a spreading habit and may prove useful for lopping. The first plants grown produced an abundance of seed and some of this will be used for multiplication in the next rains.

Desmodium gyroides.—This erect plant has been grown for some years on the station but has not yet attracted much attention. It provides, however, a good weight of green material and stands lopping at least better than the *Crotalarias*.

Indigofera suffruticosa.—This plant very much resembles *Indigofera arrecta* which is fairly well known. It can be easily distinguished from that plant by its seed pods which are curved instead of straight. Its habit is perhaps slightly more spreading than *I. arrecta*.

Tephrosia tinctoria.—This plant is very easily grown at Peradeniya and gives a satisfactory light even cover. The weight of green material afforded is less than that available from *T. candida* or *T. vogelii*.

Tephrosia vogelii.—This plant has achieved some popularity in a few districts but has possibly not yet received as much attention as it deserves. It has some resemblance to *T. candida* (Boga medelloa) but can be very easily distinguished by its seed pods which are much larger, very hairy, and have a texture resembling that of a velour hat. At Peradeniya it is indicated that the production of green material is more prolific in the young stages but the life of the plant is shorter than that of *T. candida*. The great point in its favour is that the seed pods are much less liable to insect attack than those of *T. candida*.

CREEPERS

Dunbaria heynei.—This indigenous creeper forms a very satisfactory cover where it is found to be growing spontaneously. It has been found most satisfactory in young rubber on the Kegalle Experiment Station.

Pueraria phaseoloides.—This creeper is perhaps better known under the name of *Pueraria javanica*. It forms a heavy cover at Peradeniya and seeds prolifically.