

33071. FICUS MACROPHYLLA Desf.**Moreton Bay fig.**

From Sydney, New South Wales, Australia. Presented by Prof. J. H. Maiden, Director and Government Botanist, Royal Botanic Garden. Received March 7, 1912.

"This only grows in the well-watered coastal district, and experiments with the view to introduce it into drier localities have almost invariably resulted in failure." (*Maiden.*)

See No. 3494 for previous introduction.

Distribution.—A large tree found near streams in Queensland and New South Wales in Australia.

33073. HEDYSARUM CORONARIUM L.**Sulla.**

From Jerez de la Frontera, Spain. Presented by Mr. Percival Gassett, American consul. Received March 7 and 19, 1912.

"The sulla plant, or Spanish wild clover, is found in Spain only in southern Andalusia, province of Cadiz, where it grows wild and with most luxuriance in abandoned vineyards. The Spaniards are well aware of the great value of this plant as a rich forage for stock, especially for horses, to whom it is said to give endurance; and not enough sulla can be produced in Jerez to supply the demand, for, after the stock raisers and farmers who grow it have supplied themselves, any surplus is eagerly purchased by the military officers in charge of the Jerez Deposito Semental or depot for breeding horses for the Spanish army. So far, all efforts to make it grow in other parts of Spain, even at Seville, 90 miles from Jerez, have been unsuccessful.

"Practically, then, sulla needs the same climate and soil that produce the famous Jerez, or sherry, grape, unique of its kind in the world. The climate should be sunny, hot, and dry in the summer, with plenty of rain in the fall, and a low temperature that does not reach freezing, although occasional frosts during the winter nights are not unknown in Jerez. When there has been plenty of rain in the fall there has usually been an abundant crop of sulla the next spring.

"Now as to soil. Jerez has three soils, each of which produces a distinct type of wine; the best is known as 'albariza' (lime), the second best as 'barro' (clay), and the least desirable as 'arena' (sand). As a general rule the soil of Jerez vineyards is of a porous character, light, and of a grayish color, the composition of which, according to an analysis made in 1898 in the laboratory of the London Lancet is as follows:

	Per cent.
Calcium carbonate	29. 12
Oxide of iron	4. 08
Sand, etc	45. 80
Soluble salts. 50
Moisture	16. 70
Loss on ignition	3. 80
	100. 00

"Practically a third part of this soil consists of carbonate of lime and if the fact of producing the nearest imitation of Jerez wine is any indication, it would seem as if sulla might grow in parts of California.

"Although the general belief, which seems to be supported by all other unsuccessful experiments, is that this soil is indispensable for the successful growth of sulla, yet the writer has within a month or so seen an entire field of sulla, a foot or more in height, growing in ordinary black soil, without irrigation, at the Jerez Agricultural Experiment Station, La Granja.