

21202. JUNCUS EFFUSUS.**Rush.**

From Webster, Tex. Presented by Mr. K. Saibara, through Mr. John H. Tull. Received July 8, 1907.

Secured for experiments in matting-rush investigations.

21203. KIGELIA PINNATA.**Sausage tree.**

From Cairo, Egypt. Presented by Mr. George P. Foaden, secretary, Khedivial Agricultural Society. Received July 9, 1907.

"A good shade tree having exceedingly stiff foliage; the leaves are rough, like sandpaper." (*Fairchild*.)

21204. NEPHELIUM LITCHI.**Litchi.**

From Hinghua, Fukien, China. Secured by Rev. William N. Brewster. Received at Seattle, October 18, 1906.

"*Soil*.—The trees flourish best in a soft, moist, black soil; alluvium seems best.

"*Location*.—Near by or on the bank of a stream or irrigation canal is best, though this is not essential. Where there is no stream the trees should be watered so frequently that the ground below the surface is always moist; about twice a week when rain is not abundant should be enough. After the young trees are well started, about 2 or 3 years old, the irrigation may be less frequent.

"*Frost* can not be borne at all. They will not flourish north of the frost line. They are particularly sensitive to cold while young. It is the custom here to wrap the trees with straw to protect them from the cold. After the trees are 5 or 6 years old they are less sensitive, and it takes quite a heavy frost to injure them.

"*Pruning* is not practiced with the litchi. The leaves, branches, and blossoms are allowed to grow without molestation. It is notable that the companion tree, the 'lingeng' (*Nephtium longanum*), is treated in exactly the opposite way by the same Chinese cultivators. The only pruning seems to be that required to prevent the young tree from bearing until it is 5 or 6 years old. This is very important—especially so with the 'lingeng.'

"*Propagation* is accomplished by tying a ball of earth about 8 inches in diameter to a joint on a branch of a good tree. This is done in February or March. An earthen vessel with the bottom broken out is fastened to the top of the ball, and this is filled with water almost daily. In about eight months the branch may be cut off and planted in the manner above described. The young tree should be planted in soil similar to that of the earth ball.

"*Blossoms* appear in April. They are very small and make very little change in the appearance of the tree. The blossoms fall off or thin themselves out without trouble to the horticulturist. The fruit ripens in July. It is a bright red color when ripe, and at a little distance a stranger would mistake it for a strawberry, as it is like that fruit in color, shape, and size. However, it has a rough rind, or thick skin, which breaks off easily. The meat is white, slightly tart, and very delicious. Who can describe a taste?

"The *seeds* are both large and small on the same tree. The small pit, of course, is much more desirable, but so far the Chinese do not seem to know how to develop uniformly small-seeded fruit. They claim that the blossoms that come out first develop small-seeded fruit, and the later ones are large. However, there are trees which bear many small-seeded litchis and others that are uniformly the opposite. They think the original tree and the soil have much to do with this.

"*Grafting* is not practiced with the litchi so far as I can learn. This is also in marked contrast to the methods used in 'lingeng' culture.

"*Fertilization* is important. Guano is probably as good as anything. The Chinese use night soil. They dig a shallow trench around the tree at the end of the roots and fill it with liquid manure of some sort. This is done about once in three months.

"*Enemies*.—The litchi has enemies, as all good things do. There is a worm that makes a ring around the trunk under the bark. When the circle is complete the tree dies; but the bark is broken by it, and by careful watching this