

31198 to 31202—Continued.**31200.** Yellow.**31202.** Cream colored, spotted with red.**31201.** Mottled red.

"These tubers grew at an elevation of about 12,000 feet, in poor and stony soil, worked with wooden plows. The Ullucus are sown in drills like potatoes, after which they are molded and worked with hoes." (*Furlong*.)

"The melloca is half a runner; its shoots, without support, send out roots wherever the ground is touched. Its leaves are thick and fleshy; from being large and spreading, they become erect and round like a shell in the fully developed plant. The flowers, which are small and greenish, spring in spikes from the axil of the leaves. The produce of the melloca consists in its tubers, which in their native country attain a considerable size. They are yellow, very smooth, full of starch, and appear on runners proceeding from the base of the stem and tending to rise to the surface of the soil; the plant must, therefore, be pretty well earthed up." (*Vilmorin, Jour. Hort. Soc. of London, vol. 5, 1850, p. 65.*)

"I have found this in all the Andean valleys between the River Apurimac and Potosi, i. e., between 13° and 19° 30' south latitude, and at an elevation of from 11,000 to 13,000 feet above the level of the sea. It is extensively cultivated in the vicinity of the populous Bolivian city of La Paz in common with the two varieties of *Oxalis tuberosa* (*Oca augris* and *Oca esaños*). It (the *Oca quina*) is planted between the 25th of July and the 10th of August, the seed employed being generally the smaller tubers unfit for food, and is gathered in during the last week of April. It will be recollected that these two periods of the year are the spring and autumn in the Southern Hemisphere. The mode of cultivation is in drills, into which the root is dropped with a little manure. I need scarcely state that at the great elevation of La Paz (upward of 12,000 feet) the climate even during the summer season is severe, scarcely a night passing over without the streams being frozen over, the sky being in general cloudless at all periods of the year except during the rainy season (December to March). Mean temperature 49°. The *Oca quina* (or melloca) is chiefly used in the preparation of Chuño, by alternately freezing the tubers and steeping, by which they are changed into an amylaceous substance, the form under which not only the Ocas but the common potato are chiefly employed by the Indian population; an operation probably introduced from the difficulty of boiling the unprepared tuber at an elevation above the sea where the point of ebullition of water is scarcely high enough to cook raw vegetables, 192° to 195° of Fahrenheit's scale." (*Pentland, J. B. Gardeners' Chronicle, No. 53, 1848, p. 862.*)

"In addition to these statements I think it right to say that there is little probability of this plant becoming useful as a garden esculent. Its produce will probably be found large when it is cultivated in the manner which the experience already gained shows to be necessary to it, namely, when planted in the beginning of March, the little tubers being used for sets, earthed up in July, and harvested in November. The leaves and tubers are no doubt nutritive but so full of an insipid and somewhat earthy slime that whether as spinach or as boiled tubers it will never be received at the table of persons of taste." (*Lindley, Jour. Hort. Soc. of London, vol. 5, 1850, p. 69.*)

31203. CLAUCENA LANSIUM (Lour.) Skeels.**Wampee.**

From Edinburgh, Scotland. Presented by the Regius Keeper, Royal Botanic Garden. Received June 1, 1911.

See Nos. 25546 and 27954 for previous introductions.