CITRUS STOCKS COMPARED

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The Relative Value of the Various Citrus Stocks: Proper Stocks for Arizona

At the present time, there would be little chance of convincing a citrus grove in the Salt River valley that any other citrus stock should be used than the sour orange. Prior to about 1848, the sweet orange was used almost entirely, but it gave way to the sour species, due to the resistant of the latter to gummosis. Now gummosis is no longer feared and sweet stock may again become the leading stock. In California the nurserymen are planting about fifty per cent sweet seed. This change was caused largely by the fact that the sour stock for lemon has proven unsatisfactory. Other stocks, such as grapefruit, rough lemon and trifoliate orange, have been used to a more or less extent, but their use has been limited to certain species or localities.

The sour orange is very closely related to the sweet; the fruit, however, is considerably rougher, and contains a greater number of seeds. An average sour orange contains about 20 or 25 seeds, but may run as low as 10, or as high as 40. A field box will contain about 135 sour oranges which will yield approximately 2835 seeds. A quart measure will hold about 2000 sour orange seeds, 2200 sweet orange, 6400 rough lemon, and 2600 trifoliate. It will require about three seeds, under average conditions, to produce one good seedling, when loss from poor germination, thinning, etc., is taken into consideration.

The demand for sour seed in the Salt River valley is now in excess of the supply and the sour trees are now yielding a good profit. Through the cooperation of the state entomologist's office, seed may be shipped in if it is treated according to the specifications of the state entomologist.

In regard to the success of the different citrus fruits, when grown on sour stock it may be safely said that sour orange should continue to be used as the stock for grapefruit and sweet oranges, including the navels and valencias, and this stock just about fills the requirements, since the other citrus fruits are of minor importance to us. Lemons, however, are not entirely satisfactory on sour orange and, likewise, the satsuma has failed when budded on sour orange, both in California and in Arizona.

The sweet orange is a little less cold resistant than the sour, and is much more susceptible to disease. With disease under control, there is probably little to choose between the desirability of sweet and sour stock. The sour seedlings are a little easier to grow and the seeds are easier to handle, as the sweet seed must be planted fresh from the fruit. Best results are also obtained with sour seed, when they are not allowed to dry out. When lemons are to be grown, the sweet stock should be used. The satsuma orange has been grown successfully in California when the sweet stock was used and under conditions comparable to these of the Salt River valley. It seems reasonable to believe that the sweet stock can be used in Arizona for these particular fruits and the sweet orange can as well be grown on sweet stock.

The rough lemon is being used as the main stock in South Africa, but all other citrus areas disparage it as a stock. From a nurseryman's standpoint it is ideal, producing a vigorous seedling in one year which can be budded and a fine tree produced in another season, but the union is not congenial and, in most cases, the fruit is coarse and rough.

The trifoliate orange (Poncirus trifoliata) is used in the Gulf states as the principal stock for satsuma oranges. It is the most resistant to heat and cold of all the stocks and imparts some of its hardiness to the tree. Its deciduous nature has fostered the belief that the dormancy of the tree is accentuated, thus making it more resistant to cold. The trifoliate does not like a soil of alkaline reaction and its success in Arizona is uncertain. However, it may give good results in our less alkaline soils and its hardiness would mean that the colder areas of the valley could be planted to citrus. Sweet oranges, valencias excepted, and grapefruit do not succeed on trifoliate roots. The vigor of the trees produced is very variable, which makes its usefulness doubtful even for valencias. However, the satsuma is its best when budded to trifoliate stock.

It may be concluded then, that the sour orange should be used as the stock for oranges and grapefruit. Sweet orange is probably just as good but there is no reason for changing. Lemons will succeed best on sweet stock. Satsumas fail on sour but will succeed on sweet and trifoliate.

In rooms subject to constant use, rugs having considerable, though not contrasting pattern, are best used as they do not show footprints or wear as do plain ones.

“No woman tells me what to do; I'm master of my home.”

“Yeah, I'm a bachelor, too.”