Reprinted from "*Journal of the California Horticultural Society*", Volume XXII, January, 1961 — Number 1.

Citrus Espaliers

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GARDENING literature of the 1700's contains considerable reference to citrus espaliers as growing in the finest estates in Southern European regions and in England. They were important to the nobility of that era, and in unfavorable locations heated walls and structures were erected to house them, expense being no deterrent. The orangeries built in those early days are the grandparents of our present day greenhouses. To our knowledge the only modern references to citrus espaliers have appeared in Sunset Magazine (April, 1949 and May, 1952), and in the Journal of the California Horticultural Society (1957, 1958).

Citrus espaliers are evergreen. Aside from their esthetic or ornamental value, they are grown to conserve space and to provide the trees with added heat and protection. Fruit quality is improved in climates where they might not ripen naturally.

Standard orchard and dwarf citrus trees can be espaliered (see Fig. 1). All three trees in the photograph are Valencia oranges; the middle one is a standard tree, while the other two are dwarfs. The dwarf on the right side has been pruned and grown on, the developing branches having been selected for espaliering. Note that the dwarf trees are low-branching, while the standard tree is branched at about twenty-seven inches above the ground.

Fig. 1 — Don Dillon demonstrating type of Four Winds True Dwarf Citrus to espalier.

When starting with standard orchard trees, new low branches are needed to achieve the appearance of the espaliered tree in Fig. 2. These low branches can best be developed by lopping the tree at about fifteen inches above the ground: first by cutting about three-quarters of the way through the trunk, and then by bending the top over, parallel with the ground. This operation will induce new branches to grow below the cut. Select two or three of these new branches for permanent wood, and when these are eighteen to twenty-four inches long, cut off the old top completely and let the new branches take over for espaliering.

A basic principle in growing espaliers is to grow these bottom branches first. Keep them dominant as long as needed to obtain the desired design. The tree will, inherently, grow upwards, but it is width, not height, which is desired in the earlier stages of growing. Pruning should be done at any time that growth does not conform to the style selected for the espalier. Keep the style clearly in mind — pinch or prune — the sooner you do it the better. If you remove unwanted new growth in the earliest stages, you will retain more of the fruiting twigs. Pruning away lush growth is a difficult thing for most gardeners to do, but it is a must in order to attain the ultimate design.

Those varieties with more rapid branch elongation are desirable for covering large areas. We would estimate that one dwarf citrus espalier can ultimately cover one hundred square feet, so that, if it were desired to cover the side of a twenty-foot long garage reasonably quickly, three dwarf trees should be planted and espaliered. Orchard trees when espaliered could cover one hundred fifty square feet, so that only two of these trees should be planted for the same garage wall.

The style of espalier desired may be selected from numerous forms, three of which are shown in Figs. 2, 3 and 4. Obviously the styles of formal, clear-cut design will take more skill and time than those of random, vine-like form. Whichever style is chosen, a permanent support must be set up, one which will accommodate the espaliered tree when fully grown. This support should generally be as inconspicuous as possible, and yet of sturdy construction, requiring a minimum of maintenance. A typical example is a support of redwood posts with galvanized wire. Supports which are placed against a building or wall should be set four to six inches away from the wall so as to allow for rounded growth. It is interesting to note that the lemons in the detail photo (Fig. 5) started to ripen first on the side next to the wall. Free-standing espaliers, such as the fence in Fig. 4, can be of heavier construction, but this is not imperative, for as the branches mature they need no support.

There are thirty varieties of Four Winds Dwarf Citrus, and all of them can be espaliered. Besides differences in fruit, these varieties have differences in their inherent structures, branching habits, foliage, density, size, color and in rate of elongation. Those with smaller foliage and fruit and with less rapid growth might be considered as more desirable for container-growing, but this is a matter of personal choice.

For a small type, choice can be made from the dwarf Nagami Kumquat, or Calamandin, or one of the

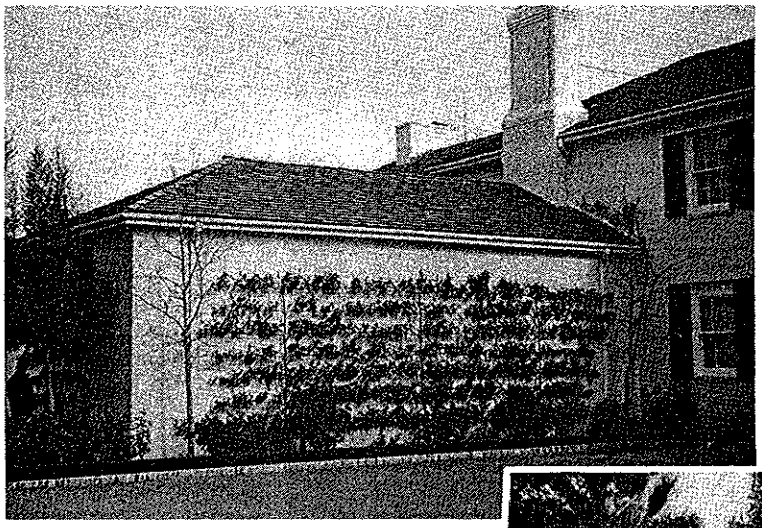

Fig. 2 — Three espaliered Eureka Lemon Trees. Residence of B. Kelham, Woodside, California

Fig. 3 — Random Espalier Valencia Orange Rosecrans Ranch La Quinto, California

Fig. 5 — Detail of Espaliered tree in Fig. 2.

Mandarins, such as Kinnow, Clementine or Dancy. We have not seen the Mexican lime espaliered on dwarf rootstock. As it is definitely upright-branching, we would assume it would be best espaliered in a semi-upright fan shape.

The Nagami Kumquat, on sweet orange orchard rootstock, is not dwarf and becomes a large tree. Although we have never seen one espaliered, it should be very effective if it attained large coverage.

The varieties capable of covering most rapidly include Lisbon and Eureka lemons, Valencia orange, Marsh seedless grapefruit, Tarocco, Washington and Summer navel oranges, the Minneola tangelo and Seedless Valencia orange. Varieties with somewhat slower rates of coverage include the Robertson navel orange, Shamouti and Trovita orange, Temple, Dweet and King Tangers, Meyer and Ponderosa lemons, Sampson tangelo, Eustis limequat, Rangpur lime and Ruby Pink grapefruit. Although the Owari Satsuma and Kara mandarins, as well as the Bearss Seedless lime, have strong individual branching habits, we would consider them as being relatively slower in coverage that the foregoing varieties.

A well-grown espalier is a hallmark of a distinguished gardener. Espaliers require skill, patience and a knowledge of the habits of growth of plants. Yet the fact that a home gardener can grow them successfully is clearly shown in the photographs. We hope to see more citrus espaliered. They could become important to you.

(Reprints of the articles from Sunset Magazine and the Journal of the California Horticultural Society are available at Four Winds Growers, Mission San Jose, California. Prices of articles given on request).

Fig. 4 — Espaliered Eureka Lemon fence. C. Mavro Warren residence, Saticoy, California.