enough in other areas with warm winters for satisfactory evaluation. A partial list of areas where budwood or trees of named varieties and advanced selections have been sent is listed in Table 2. 'Okinawa' rootstock seed has also been sent to several areas where rootknot nematodes are a problem. Observations are spotty as many growers have not reported successes or failures in these trials.

In considering trial plantings, it might be helpful to compare chilling requirements as commonly described in the U.S.A. [accumulated hours during dormancy at and below 45°F (7.2°C)] with the coldest month mean temperature. It seems certain that very low-chilling-requirement peaches can perform perfectly well without any hours below 45°F, requiring only perhaps some winter cold in the range of 55°F (12.8°C). For these reasons, the material presented in Table 3 is given for suggested comparisons, based on Florida observations and limited reports from other areas. Differing lengths of the cold period, dormancy induced by drought or defoliation, and local effects such as fog or lack of extremely warm periods can be expected to modify the comparison of Florida with other areas. However, the table suggests a starting point for locating variety trials of these Florida varieties.

There could be some very interesting developments in peaches and nectarines in tropical and sub-tropical areas. There are numerous advantages in being able to produce peaches and nectarines in an area free of frost hazards to trees and young fruit. Examples would include timing of date of maturity, or the possibility of producing two crops a year with control of water and defoliation. Also, there are potentials for processing if suitable varieties can be found or developed.

Nomenclature of the 'Salt Creek' Grape

N. H. LOOMIS[1] AND LLOYD A. LIDER[2]

A grape rootstock commonly called 'Salt Creek' is very resistant to nematodes and phylloxera. Vines grafted on it are extremely vigorous. It has been used extensively in California as a rootstock for *Vitis vinifera* cultivars, particularly on the lighter soils where weaker rootstocks fail.

Lider (4) noted in 1960 that this rootstock was a *V. champini* grape, and not the same as the original 'Salt Creek' variety derived from *V. doaniana,* as introduced by T. V. Munson in the nineteenth century.

There is an early reference to 'Salt Creek' as *V. champini* by Nougaret (7) in 1923. Since *V. champini* and *V. doaniana* are entirely different species, the *V. champini* 'Salt Creek' grape rootstock appears to be misnamed.

It seemed probable that the *V. champini* 'Salt Creek' was one of the seven named *V. champini* cultivars which include Barnes, De Grasset, Dog Ridge, Jolly, Ramsey, Vermorel, and Viala (5). They have been cultivated and tested to some extent as rootstocks (3). All but Viala and the true *V. doaniana* variety, 'Salt Creek', were compared at Fresno, California.

The *V. champini* clone obtained from the Illinois Agricultural Experiment Station and designated as Ramsey appears to be identical in all respects with the *V. champini* clone now

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designated as 'Salt Creek'. The comparisons pertained to the fruit, seeds, leaf shape, and color of the leaves, leaf petioles, tendrils, and canes. Both Ramsey and *V. champini* 'Salt Creek' have the same distinctive, rich, dark glossy green dentate leaf, and not the sharply serrate leaf of *V. doaniana*. *V. champini* has five large veins that unite on the under surface of the leaf at the point of attachment to the petiole. With Ramsey and *V. champini* 'Salt Creek' leaves, the two outer veins on each side coalesce slightly before they meet the central vein. None of the other *V. champini* varieties observed has this characteristic.

Unfortunately no technical descriptions of the *V. champini* selections exist (2, 3, 5, 6, 8). Galet (1) describes 'Salt Creek', but cuttings of the variety which he described were obtained from France, and proved to be the *V. champini* type 'Salt Creek'. In 1910 Husmann (2) published photographs of the upper and lower surfaces of a true 'Salt Creek' leaf which have the typical serrate leaf of *V. doaniana*. The view of the upper surface is reproduced in Figure 2. Figure 1 shows leaves of Ramsey, the *V. champini* 'Salt Creek', and of *V. doaniana*. The close resemblance in all characteristics of *V. champini* type 'Salt Creek' and Ramsey indicates that they are the same, and that 'Salt Creek' should not be used as the cultivar name for the *V. champini* type. The name 'Salt Creek' belongs to *V. doaniana*, an entirely different species.

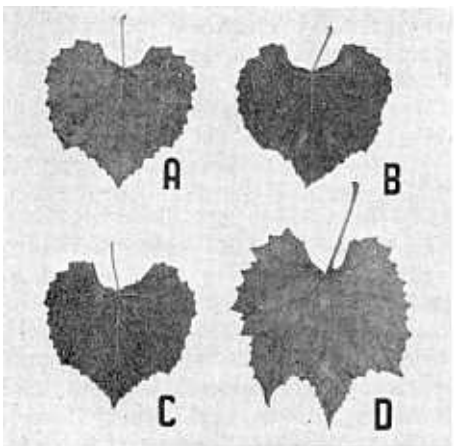

Fig. 1. A: *V. champini* 'Salt Creek'—U. S. Dept. Agr., Fresno, Cal.; B: *V. champini var.* 'Ramsey'—U. S. Dept. Agr.; C: *V. champini* 'Salt Creek'—Univ. Cal., Davis; D: *V. doaniana*—"Seedling selection."

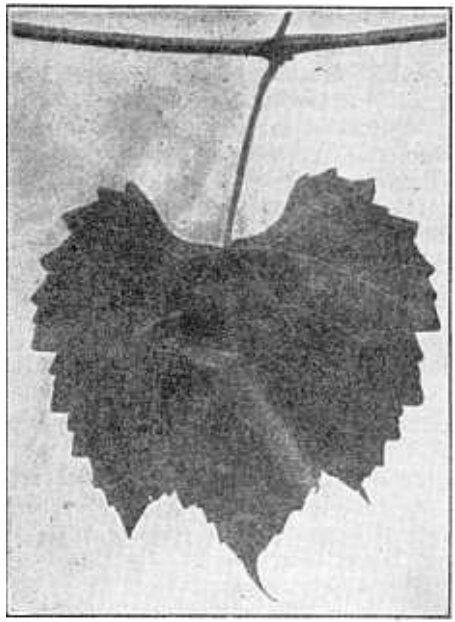

Fig. 2. "*Vitis doaniana*; upper side of Salt Creek leaf"—from U. S. Dept. Agr. Bureau Plant Industry Bul. 172 published 1910.

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Fire Blight Susceptibility of Apple Rootstocks in Arkansas

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Extensive evaluation of clonal apple rootstocks in Arkansas started in 1961 when a replicated planting of Lodi, Jonathan, Red Delicious and Golden Delicious each propagated on EM IX, EM VII, MM 106, and MM 111, was established at the Fruit Substation, Clarksville, Arkansas.

At the end of three growing seasons, the seriousness of tree loss due to fire blight *(Erwinia amylovora)* became apparent. The more precocious trees on EM IX and VII developed bloom and twig blight which extended into the scion trunk and, particularly in the case of EM IX, into the rootstock. At planting the graft union was placed 4-6" above the ground. Observations indicated that the stock was frequently dead while the infected scion was not. Other observations showed that with EM VII-trees where stock suckering had occurred, fire blight had infected the suckers and subsequently killed the stock beneath an otherwise healthy scion. Data in Table 1 show the percent of the original planting for each rootstock surviving after six years. While tree mortality was not always due to fire blight (apple measles and winter injury exacted a minor toll), a significant amount of tree loss can be attributed to fire blight, indicating variability in fire blight susceptibility among rootstocks. Unfortunately, no definitive record on mortality cause was kept in this planting.

In 1964, a planting of 51 plots containing two each of seven clonal apple rootstocks was established at the Maine Experiment Station, Fayetteville, Arkansas. The stocks consisted of grafting-size rooted layers obtained from a commercial source. Fire blight was observed in this planting of ungrafted stocks the first season. An inventory of all trees that died of blight through 1967 and those killed to the ground in 1968 (See Table II), points to the susceptibility of M-26, and, to a lesser extent, EM-IX.

To further examine the blighting tendencies of these rootstocks, a specific experiment was imposed on a portion of the previously mentioned rootstock planting. An additional purpose of this study was to investigate

Table 1. Survival record of apple trees[1] on four clonal rootstocks, Clarksville, Arkansas.

Root-stock	Set No. 1961	% of Trees Surviving each fall '63	'64	'65	'66	'67	'68
EM IX	48	33	31	19	19	Pulled	
EM VII	48	69	54	35	33	29	Pulled
MM 106	36	86	81	75	75	75	75
MM 111	36	100	100	100	100	100	97

[1]Lodi, Jonathan, Red Delicious, Yellow Delicious.

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