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THE ORNAMENTAL VALUE OF THE
SALTBUSHES.

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THE ORNAMENTAL VALUE OF THE SALT-BUSHES.

INTRODUCTION.

In many sections of both the irrigated and the nonirrigated West there are localities which are, or soon become, more or less alkaline from the accumulation of an excess of soluble salts in the surface soil. The cultivation of tender ornamental plants in such localities becomes a difficult matter. This is especially true of gardens and lawns where the application of water is frequent and seldom sufficient to carry any appreciable quantity of salt out of the surface soil, but, on the contrary, has a tendency to condense it there.

A decision as to the best shrubs to plant for borders and in other permanent locations is often difficult to reach. Of course, certain conventional trees like the cottonwood are almost certain to thrive and serve a useful purpose. The list of ornamental shrubs which will withstand alkali and drought, the excessive heat of summer, and 15 or more degrees of frost in winter is a comparatively small one. An extension of the list of ornamentals which will grow under these varying conditions is highly desirable for both farmhouse surroundings and the town lot, for the latter is often subject to the same conditions as the surrounding farms and suffers from the soluble-salt accumulations as well as from frequent shortages of the water supply.

Certain species of saltbushes are well adapted to use in these situations as ornamental plants. They are especially adapted to hedge and border use. The fact that one or two species are now successfully employed for ornamental purposes on the Pacific coast suggests that this group of plants has a much greater application in ornamental plantings than might at first be supposed.

PRESENT USE OF THE SALT BUSHES AS ORNAMENTALS.

Much has been written about the economic uses of the saltbushes, but their ornamental uses seem to have been lost sight of or neglected except along the Pacific coast. The city of Santa Barbara, Cal.,

probably makes greater use of them as ornamentals than any other locality in this country. Here the utilization of these shrubs is general. One species is used very effectively as a hedge plant. (See Pl. I, fig. 2.)

It was thought that Doctor Franceschi, who has done so much for the horticulture of southern California, was responsible for the practice, but upon inquiry he modestly disclaims any credit for the innovation and informs us that the people of Santa Barbara adopted the use of the saltbush without the aid of any horticulturist. Who first used it is not known, but certain it is that the plant is well adapted for the purpose to which it is put, and in many places in the city makes an effective hedge which sets off to good advantage the other more highly colored ornamentals and the more tender plants which grow here to perfection. If such ornamentals are effective in a locality which can grow such a wealth of tropical and subtropical plants, how much more should related native species having equal ornamental qualities be of value in other regions where the growing of tender ornamentals is difficult.

CHARACTER OF A HEDGE OF SALTBUSHES.

At Santa Barbara the local native, *Atriplex breweri*, is the species employed. In this locality the plant is an evergreen. Its development is very rapid under favorable conditions, a hedge well cared for often becoming 18 inches or 2 feet high in a single season from cuttings set in the spring.

The color of the plant is a dull, ashen, gray-green, very different from privet, boxwood, pomegranate, and other common shrubby hedge plants. In many settings this is not a disadvantage, for the ever-present dust is less noticeable upon such foliage than upon the rich, glossy surface of the privet, for example, and a pleasing variation is afforded by the use of the gray, dull-colored plant. The growth may be made as thick and impenetrable as desired by frequent clipping when young. The writer has never seen a heavier, thicker growth than is found in some of the well-trained hedges of Santa Barbara. A hedge may be brought to any shape or size up to 6 or 8 feet high, and apparently lasts indefinitely when properly cared for. A neglected hedge, or one which for any reason is not satisfactory, can be cut down and will easily make a perfect hedge 3 feet high in one season from the old stumps.

The main disadvantage of the plant when used as a hedge is that the wood is brittle and it can be broken down more easily than some other hedge plants. It may be for this reason that the saltbush hedges grown in California are invariably wider than is usual for this kind of planting. However, the compactness of the growth

FIG. 1.—*ATRIPLEX LENTIFORMIS*, A NATIVE SPECIES OF SALTBUCH WELL ADAPTED TO HEDGE AND OTHER ORNAMENTAL USES.

FIG. 2.—A WELL-KEPT HEDGE OF *ATRIPLEX BREWERI*, SANTA BARBARA, CAL.

when properly pruned compensates in a large measure for the brittleness of the wood by giving it a solidity of appearance. Its gray color might at times be undesirable, but in many surroundings it is a decided advantage.

PROPAGATION.

Atriplex breweri at Santa Barbara is invariably grown from cuttings, hardened wood of not too great age being employed for the purpose. If cuttings are planted in midsummer the early wood of the current season's growth is preferred. If planted in the spring, well-matured growth of the previous season is used. The most common practice is to use rather large cuttings, a foot or more in length. These are preferably rooted in sand in the nursery, but not necessarily so. They are often set permanently in the hedge row. If planted early in the season in this climate they require the minimum of attention. If set in midsummer, however, although rooting readily they do better if shaded a little, and they must, of course, be irrigated.

Although the species could doubtless be grown from seed, that is a much slower method and one apparently never resorted to in California, the growth from cuttings being quick and certain. A good-sized hedge can be grown the first season from cuttings if they are set in the early spring.

SPECIES OF SALTBUSHES.

The botanical genus *Atriplex*, to which the saltbushes belong, is a large one, but only a few of the species are suitable for the purpose discussed here. One, *Atriplex breweri*, and possibly one or two Old-World species are now being used. They are suited to coastal conditions and probably have a much wider range of adaptability than is now being made use of.

The most common native species of saltbush in this country is the shad scale (*Atriplex canescens*), which grows throughout the Great Plains, the Rocky Mountain, and the Interior Basin regions from the British to the Mexican borders. Its habit and rapidity of growth suggest its possible use for hedges, like *A. breweri*.

Atriplex torreyi of Nevada and *A. lentiformis* of southern Arizona and southeastern California are rank and rapid growers which shape and prune well. They have habits similar to *A. breweri*. *Atriplex lentiformis* is known to grow readily from cuttings, and it is probable that most of the shrubby species of the genus can be propagated in the same way that *A. breweri* is propagated at Santa Barbara at the present time.

It appears that *Atriplex lentiformis* (Pl. I, fig. 1) is especially promising. It is a very rapid grower, is well adapted to pruning, and thrives on very strongly alkaline soil. Upon partially subdued lands in the Salt River and Gila River valleys it is not uncommon for this species to make a growth of 5 to 6 feet during late summer and autumn after the removal of the grain crop in early summer. Occasional plantings of it prove beyond a doubt that it has a wide application as an ornamental in the general region in which it is found native. The same is true of *A. torreyi*.

ADVANTAGES OF THE SALTBUSHES AS ORNAMENTALS.

Some species of the saltbushes are evergreen in the warmer situations.

They will thrive on either alkaline or nonalkaline soil.

Some species grow in cold climates; others in hot climates.

The gray color of the foliage is often a decided advantage.

Many species are rapid growers.

They shape up well and make a thick, impenetrable growth.

Certain species are adapted to the variety of conditions prevailing from the seacoast to the arid interior.

They thrive on a minimum of moisture, but respond readily to a more favorable supply.

A fair hedge can be made of some of the species in one year from cuttings, and one of usual dimensions will grow in a single season, when properly cared for, from the roots of an old hedge which has been cut down.

The main disadvantage of saltbushes is the brittleness of the wood.

Approved:

JAMES WILSON,

Secretary of Agriculture.

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