

GROWING PROTEAS IN SOUTHERN CALIFORNIA

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Teague's Flowers
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Proteas were first grown commercially in Southern California about ten years ago from seed imported from South Africa. Since then they have been found to flourish only in a few selected areas where the soil and climatic conditions are optimum.

Plants of the whole *Proteaceae* family require a very well drained soil of good porosity. Their climatic requirements are somewhat strict also. The average summer temperature should not be above 90°F for best flower production. Foliage burning and flower aborting can result from temperatures above 100°F. In general protea production is limited to areas with very little, if any, frost.

I am growing proteas on 20 acres near Vista, California, near San Diego. The growing site is approximately 11 miles from the ocean. It is located on high sloping ground. The ocean breezes keep the temperature cool in the summer afternoons (85°F).

We have about 30 different species of *Proteaceae* growing and flowering as good, or better in some respects, as their South African and Australian counterparts. Apparently one of the main problems in South Africa is insect damage to the foliage which renders the flowers less marketable. As yet we have no major insect problems.

Our irrigation is done by the "drip system". We use 1/2 inch pipe between rows with a 1/16" tube to each plant. This system seems to be very satisfactory for commercial protea growing because of the system's leaching quality.

The three main *Protea* species grown for cut flower production are:

1. *Protea neriifolia* 'Pink Mink'
2. *P. eximia* (*P. latifolia*)
3. *P. cynaroides*, king protea

Other South African *Proteaceae* we grow commercially are:

<i>Protea obtusifolia</i>	<i>L. decorum</i>
<i>P. repens</i> , Sugarbush	<i>L. discolor</i>
<i>P. barbiger</i> a, queen protea	<i>L. galpinii</i>
<i>P. compacta</i>	<i>L. strictum</i>
<i>P. longifolia</i>	<i>L. tinctum</i>
<i>P. grandiceps</i>	<i>Leptospermum cordifolium</i>
<i>P. compacta</i> x <i>P. barbiger</i> a	<i>L. tottum</i>
<i>Leucadendron argentum</i> , silver tree	

The Australian Proteaceae in production are:

<i>Banksia ashbyii</i>	<i>B. occidentalis</i>
<i>B. baxterii</i>	<i>B. prionotes</i>
<i>B. burdetti</i>	<i>B. speciosa</i>
<i>B. coccinea</i>	<i>B. victoriae</i>
<i>B. integrifolia</i>	<i>Dryandra formosa</i>
<i>B. media</i>	<i>Isopogon formosum</i>
<i>B. menziesii</i>	<i>I. anethifolius</i>

On our acreage in Vista, most species of *Proteaceae* will start flowering from 18 months to 3 years from seed or cutting, being somewhat faster to production from cutting-grown stock. *Protea neriifolia* 'Pink Mink' and *P. eximia*, which are two good commercial varieties, can average 50 or more flowers per year on plants that are 7-8 ft. tall and 5-6 ft. in width.

Most all of the proteas and *Proteaceae* seem to be very suitable for drying. Some of the species we grow are used almost entirely for drying and others are sold both fresh and dried.

MODERATOR CLAY: Our next speaker will speak on "Ornamental Citrus." He is a graduate of UCLA with a degree in Subtropical Horticulture. He began teaching at Cal Poly in 1948, working principally with citrus. He is a Vice-Chairman of the Valencia and Naval Orange Committees of the California Citrus Industries. I would now like to call on Prof. Albert Canham.

ORNAMENTAL CITRUS

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The glossy green, waxy foliage of citrus, and the symmetry of the natural shape of the tree is pleasant to behold. Add to this the fragrant, exotic perfume of the blossoms, the color and taste of the fruit produced by the citrus tree and there is no dispute that it has a natural ornamental value difficult to match. Yet, citrus does not commonly find its way into landscape design. The fact that it is an attractive evergreen, it produces blossoms and fruit over long periods during the year and that it is not a massive tree should make this group of plants sought after for any garden scheme.

Perhaps citrus is too commonly thought of as an economic crop. It is, for orchards, planted in large blocks in neat, regularly spaced, rows; planted in this manner, the trees are very attractive.

¹Professor, Fruit Industries