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Apricot Production and Cultivar Situation in California

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Abstract

The cultivated acreage of apricot in California has decreased from 1981 to 1990. Furthermore, the U.S per capita consumption of apricots has also declined from 1970 to 1988. The major apricot cultivars presently grown in California are 'Blenheim,' 'Tilton,' 'Patterson,' 'Castlebrite,' 'Modesto' and 'Katy.' Some new cultivars being introduced are 'Earlicot,' 400-AR-1, 'Mesa #1' and 'Mesa #2.' In addition, some promising advanced selections from the USDA, ARS breeding program at Fresno will soon be available. These improved cultivars will contribute higher apricot quality and lengthen the season of production in California.

Introduction

The United States produced about 115,000 tons of apricot in 1990 (7) and is sixth in apricot production in the world after USSR, Turkey, Spain, China and Italy (3). California is the major producer of apricots in the United States and accounted for approximately 98% of the utilized production in 1989 (6). However, the total acreage of apricot trees has decreased in California the last ten years. The main reason for this is the increasing imports form other apricot producing countries and decreased consumption. Turkey and Spain have increased shipments the last six years, reaching one-third of total tonnage available in the United States in 1988. Also, per capita apricot consumption declined from 1.3 lb/person to 0.85 lb. in the 18-year period from 1970 to 1988 (5).

This paper outlines the acreage and average production from 1981 to 1990 in California. The major cultivars, newly released cultivars, and promising selections will be discussed.

Production and Acreage

California apricot production from 1981 to 1990 was fairly consistant with an average production of approximately 103,000 tons, of which 54.6%

were canned, 22.3% dried, 11.9% fresh and 11.2% frozen (Table 1). There has been year-to-year fluctuations during this period (Fig. 1) but average production decreased when compared with an average production of 143,000 tons for 1973-77 (4). Furthermore, the acreage of apricot trees decreased at a rate of about 450 acres per year the last ten years (Fig. 1). When compared with that of 1977 (4), the present acreage has deminished by about 10,100 acres.

The five major apricot producing counties in California in 1990 were Stanislaus (6,864 acres), San Joaquin (2,882 acres), San Benito (2,001 acres), Merced (1,781 acres) and Contra Costa (1,042 acres). Solano, Kern, Yolo, Santa Clara, Fresno and Tulare counties each have more than 500 acres (1).

Cultivars and Trends

Twelve years ago, 'Blenheim' and 'Tilton' were the major cultivars in California (4). However acreage of 'Patterson' has increased substantially and other new cultivars have also become established (2).

The major apricot cultivars currently grown in California are 'Blenheim' (including ' Royal Blenheim' and 'Derby Royal'), 'Tilton' and 'Patterson.' 'Blenheim' ripens the first week of June in the Fresno area, approximately four weeks after 'Castlebrite' and is used mainly for drying and for fresh market. 'Tilton' ripens in the middle of June and is used for canning, fresh market and for drying. 'Patterson' ripens three to five days before 'Tilton' and is used for canning, fresh market, frozen and drying.

Other important cultivars currently grown in California are 'Castlebrite,' 'Modesto' and 'Katy.' 'Castlebrite,' which ripens the middle of May in the Fresno area, is used only for fresh market and currently is the most important early cultivar. 'Modesto' ripens one

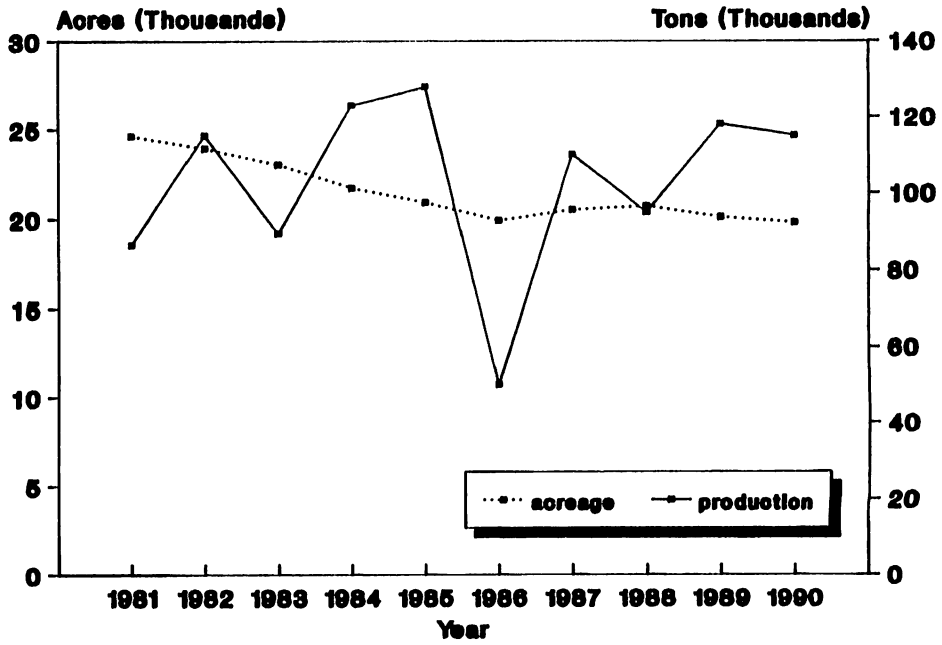

Figure 1. California apricot acreage and production during the 1981-90 period.

week before 'Blenheim' and is used for canning and drying. 'Katy' ripens one week after 'Castlebrite' and is used only for the fresh market (Fig. 2).

Several new cultivars have been released for the fresh market. 'Earlicot,' which ripens two days before 'Castlebrite,' is reported to have larger size and better flavor than 'Castlebrite.' 400-AR-1 ripens with 'Castlebrite' but is larger with lower acid content. It has greenish skin color and yellow-orange flesh. 'Mesa #1' and 'Mesa #2' are adapted to Southern California because of their low chilling requirements, but fruit size is only medium to small.

During recent years the apricot breeding program at the Horticultural Crops Research Laboratory, Agricultural Research Service, U.S. Department of Agriculture at Fresno has focused on developing apricot cultivars which overcome deficiencies in the current fresh market cultivars. Emphasis has been placed on developing early and late ripening cultivars that have good quality, firmness, size and attractiveness. Self-fertility has also been emphasized since all the major cultivars are self-fertile. Resistance to pit burn in late maturing cultivars is necessary because of the high summer temperatures in California.

At this time several USDA selections appear to be quite good and might be able to raise the consumer's preferences for apricots.

Some of the most promising selections that combine the above characteristics are K104-98, K51-71, K102-93, K106-2 and K210-35. K104-98, the earliest selection, ripens seven to ten days before 'Castlebrite.' It was selected from a cross between New Jersey selections (NJA32 and NJA42). It is firm with dark orange flesh and skin, medium size and round to slightly

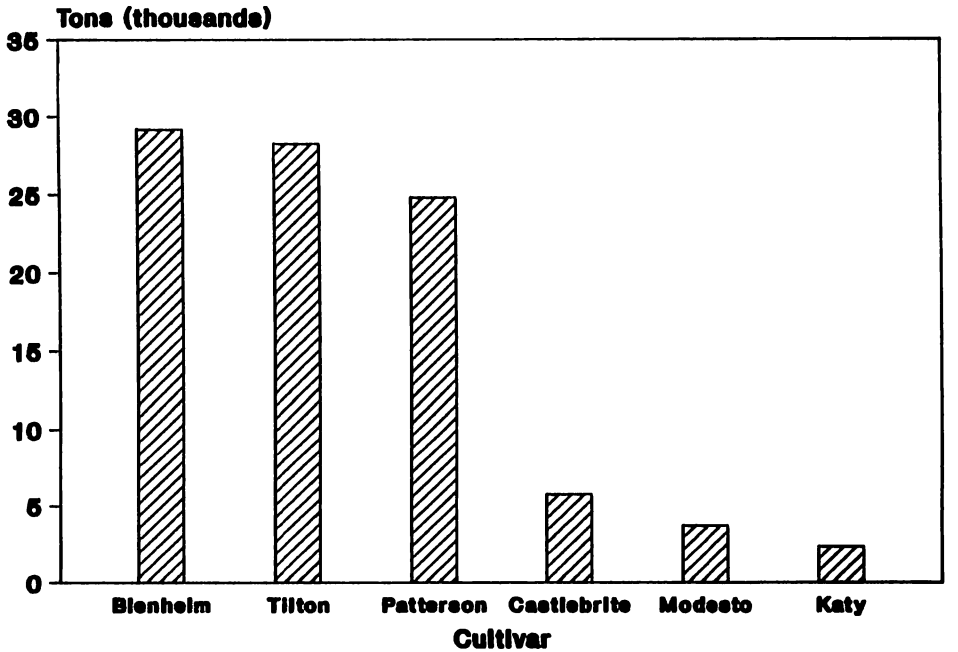

Figure 2. Average yearly production of major apricot cultivars grown in California during the 1987-91 period.

Table 1. California apricot acreage and production.

Acreage (1990)		Average production 1981-1990 (Tons)	
Bearing	16,710	Total	103,000
Non-bearing	3,065	Utilized	97,600
Total	19,775	Fresh market	11,640
		Processing	85,960
		Dried	21,750
		Canned	53,260
		Frozen	10,950

ovate shape. K51-71 ripens two days after 'Castlebrite,' is large and round with orange flesh and red blush. It is very attractive with firm flesh and average quality. K102-93 ripens with 'Castlebrite.' It is slightly smaller than K51-71 but has better quality with firm orange flesh, which is fully freestone. K106-2 is five days later than 'Castlebrite,' very attractive, with a red blush on shiny orange skin. The flesh is also orange. It is firm with good eating quality and round to slightly flattened in shape. K210-35 ripens seven days before 'Patterson' and is firm with medium to large size, orange flesh, slightly rough shape and is very productive.

Some of the private breeding programs are evaluating selections which could be released because of their late maturity period, until mid-September (Zaiger, personal communication) as well as extremely firm and sweet apricots for long distance shipping (Bradford, personal communication).

Continued efforts in apricot breeding should result in cultivars that could change the current decline in apricot production. Future goals of the California Apricot Advisory Board are to develop more high quality apricots, like K106-2 and K210-35, that fill the void in the ripening season between 'Castlebrite' and 'Patterson' and have all the current horticultural attributes along with resistance to diseases. This will increase consumer enjoyment of apricots, per capita consumption and production.

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