

against high levels of aflatoxin would be the most effective means of preventing such an event with pistachios handled in California.

Similarly, witnesses stressed the need to have a mandatory regulatory system in place in the event that aflatoxin were found in non-California pistachios, but were to universally impact the demand of all pistachios, regardless of origin. If such an event were to occur, witnesses of the order stressed the usefulness of having a federally regulated program for aflatoxin in order to maintain consumer confidence with regard to California pistachios.

Evidence presented at the hearing supports a Federal marketing order for pistachios grown in California. In view of the foregoing, and based on the record of the proceeding, it is concluded that current economic and marketing conditions justify a need for a marketing order for California pistachios. The order would meet many needs of the industry and would tend to effectuate the declared policy of the Act.

Material Issue Number 3—Definition of Pistachio and Production Area

Definitions of the terms “pistachio” and “production area” should be included in the order to delineate the commodity and the area that would be regulated under the provisions of the proposed program.

“Pistachio” should be defined to mean the nut or nuts of the pistachio tree, genus *Pistacia Vera*. The term “pistachio” would cover all fruits of the *Pistacia Vera* grown in the production area, whether inshell or shelled. Pistachios grown outside the production area would not be covered by the proposed order.

Record evidence explains that the pistachio nut is the seed of a semidry drupaceous fruit, or stone fruit, much like peaches and mangos. However, while peach flesh is eaten and the seed discarded, the opposite is true of the pistachio; the flesh or “hull” is discarded and the seed, once it has been freed from protection of the thin, bony shell, is eaten.

Pistachio development starts with a seedling being grown in a pot in a nursery for nearly two years. The seedlings are then transplanted into the field at a rate of 130 to 160 seedlings per acre, usually in January or February when the seedlings are dormant. Toward the end of the first growing season these seedlings are then grafted or budded in the field to *Pistacia Vera*, both male and female. The pistachio tree is dioecious, meaning there are both “male” and “female” trees, and is pollinated by the wind. The typical

California pistachio orchard requires one male tree for every 8–24 females.

Pistachio trees typically require six years of maturation after budding to produce a commercial crop. During the maturation period, young trees require considerable care, including yearly pruning, irrigation, fertilizer application and pest control, thus contributing to the considerable investment costs of establishing a pistachio orchard. Harvest of a tree's first commercial-sized crop typically occurs in the tree's seventh year. The crop and tree continue to grow in size for another seven to eight years until the tree is considered fully mature and has reached a height of approximately 25 to 30 feet.

Pistachio trees require a significant dormant period, currently estimated to be 800 hours below 45°F, followed by long, hot, dry summers. The trees are pruned during dormancy, and once they bloom, in late March or early April, they need to be irrigated, fertilized and treated for various pests during the rest of the year. The major input is usually water, as each acre requires approximately 36” of water to be applied during the growing season if the trees are to produce a full crop.

Currently there is no consensus as to the useful commercial life of a tree. Pistachio trees in the Middle East have lived for thousands of years. Trees appear to be long lived in California, although producers must replace 2 to 3 percent of their trees that die from disease or other causes every year. The overall cost to develop an acre of pistachios until revenues exceed growing expenses is between \$10,000 and \$15,000 per acre, and does not differ significantly due to the size of the planting.

The term “production area” should be defined to mean the State of California. The record shows that the production area defined in the proposed order is the major pistachio producing area in the United States.

Witnesses testifying at the hearing stated that over 97 percent of the pistachios produced in the United States are grown in California orchards. Production is concentrated in six counties in the San Joaquin Valley, in the central part of the State. However, commercial production is reported in an additional 20 counties throughout California. While there are some counties in the State in which no pistachios are currently produced, witnesses testified that the production area should be defined to allow for coverage of any new pistachio development outside current plantings within California.

Witnesses also proposed coverage of the entire State because the industry (through the California Pistachio Commission) finances national and international promotion programs to expand demand for California pistachios. Thus, buyers of California pistachios consider the entire State to be the pistachio producing area.

While the proposed Federal order and the State commission would operate independently of each other, witnesses testified that the quality assurance standards implemented under the proposed order would complement the promotion activities undertaken by the Commission. Thus, they believed that having the two programs would benefit the California pistachio industry.

Record evidence indicates that there are minor amounts of commercial plantings in eastern Arizona and New Mexico. However, it is estimated that these states produce only 2 and less than one percent of national production, respectively.

Witnesses explained that Arizona and New Mexico had been considered as part of the production area during the initial stages of drafting the proposed order. According to record testimony, although there is some interest in the proposed marketing order among Arizona and New Mexico pistachio producers, support in those States is not strong enough to warrant including them in the proposed production area.

Record evidence also indicates that pistachios produced in Arizona and New Mexico are mainly consumed within the respective State boundaries and have a relatively limited presence in national and international markets. Moreover, acreage in both States is neither increasing, nor is it expected to increase in the future, as climate factors limit the growth potential of existing pistachio orchards. Pistachio production from these States is not considered to represent a significant portion of total domestic production. It is also unlikely that Arizona and New Mexico pistachios will hold a significant presence in domestic and international markets in the future.

Lastly, information presented at the hearing indicates that California nurserymen have sold a limited amount of pistachio trees into other western states, such as Nevada, Utah and Texas, but there is no known significant commercial production in these States. Production from these States is not believed to enter into the current of interstate commerce.

The Act requires that marketing orders be limited in their application to the smallest regional production area found practicable. For the reasons given