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Pam. 20

Agricultural ARIZONA



Compiled by
Agricultural Committee, Phoenix Chamber of Commerce
Published by
Immigration Commissioner, Maricopa County,
Phoenix, Arizona
[1929]



The
SALT RIVER
VALLEY

AGRICULTURAL ARIZONA

FEW states in the Union have as varied a climate or as wide a range of agricultural products or agricultural activities as Arizona. Active farming is carried on at elevations very little above sea level up to an elevation of nine thousand feet above the sea. The total area under irrigation in the state is about 625,000 acres.

Crops which are grown vary from the tropical and semi-tropical to those which are ordinarily grown in the northern tier of states. There is very little farming except under irrigation.

THE SALT RIVER VALLEY. The largest area of irrigated land in any part of the state is the Salt River Valley in Maricopa county. The Roosevelt Dam, completed in 1912, has made it possible to irrigate some 242,000 acres of land in this single project. The success of irrigation under this project has been the inspiration for the development of other projects adjacent so that the total amount of land now under irrigation is slightly more than 400,000 acres. There is water available for the development of about 250,000 acres additional.

ADVANTAGES The special advantages for agriculture and horticulture in the Salt River Valley are: (1) The remarkable fertility of the soil which seems to contain all of the plant food elements necessary, with the exception of nitrogen which is easily and inexpensively added by the growing of alfalfa, a product which grows luxuriantly. (2) A long growing season; the average date of the first frost in the fall being December 4, and the average date of the last frost in the spring being February 10. This gives an average of 296 growing days. (3) The abundant sunshine; the average days of sunshine covering the long period of 339 days.

These are Nature's gifts. Added to these is the assurance of water made possible by reservoirs for storing the floods which usually occur in the winter and spring months and to a somewhat lesser extent in the summer season.

CROPS In the early days of agriculture in this valley, the principal crops raised were alfalfa, wheat, barley, and the grain sorghums. About fifteen years ago cotton was introduced and now has become one of the principal crops.

Citrus Fruit

ARIZONA has been raising citrus fruits for a great many years, however, the country is new, having only recently developed from a mining, stock-raising country into a country of cities, homes, industries and the more highly specialized agriculture. It is now producing less than one per cent of the citrus fruit of the nation.

During all this pioneer period, when for years or until very recently barely enough citrus fruit was raised to

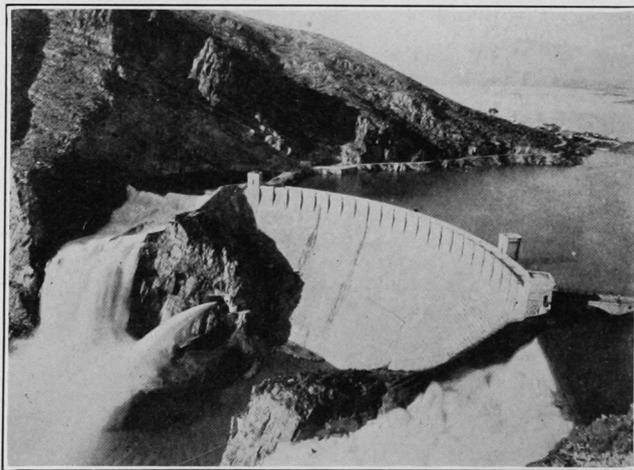
supply the local demand, certain facts of tremendous value in the development of the industry have been established. These facts show very clearly that in the growing of citrus fruit, especially in the Salt River Valley, there is a brilliant future.

NO FROST OR INSECT DAMAGE. During a period of thirty years there has been little damage to either fruit or trees because of frosts. No other citrus growing district is so free from pests that in other sections destroy or reduce the crop, or through the added expense of spraying or fumigating, decrease the profits.

We have large undeveloped areas of good soil and an ample supply of water for irrigation purposes,—land and water being purchaseable for less than must be paid for equally desirable land and water elsewhere. There is an abundant supply of cheap manure, this being still very largely a dairying and stock growing country.

Anyone contemplating going into the citrus industry in Arizona, or for that matter elsewhere, should study the situation carefully and read the bulletin "International Trade in Citrus Fruit" published by the United States Department of Commerce. It will be noted that the production of grapefruit is limited almost entirely to the United States, with 90 per cent of production in Florida, and that the total production is less than ten million boxes.

BIG DEMAND FOR GRAPEFRUIT. The demand for grapefruit has increased much more rapidly than that of



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ROOSEVELT DAM

This structure impounds water for irrigating 242,000 acres in the Salt River Valley. This, with other dams, produces hydro-electric power which helps materially in lowering the cost of distribution of water.



Nearly four hundred miles of paved roads in the Salt River Valley lessen the cost of marketing products and add to the pleasure and comforts of living.

any other citrus fruit. Already the world is producing approximately 125,000,000 boxes of oranges, and in order to maintain prices it has been found necessary to market a considerable proportion of the orange crop of the United States in England, and on the Continent, in competition with oranges from Spain, Italy, South Africa, Jerusalem and other countries. Spain alone produces more than the United States and at a lower cost.

Oranges of all kinds and grapefruit do remarkably well in Arizona,—the oranges being remarkable for their color, however, the production of Navel oranges per unit is very small. Valencias that produce a better crop come in competition with the peak of the very large California crop of Navels and are subject to whatever frost hazard exists since they cannot be marketed until spring. Grapefruit, on the contrary, produces as large or a larger crop of finer fruit and at a lower cost than any other section except possibly some of the tropical islands.

Our most distinguished citrus experts have pointed out that in the face of all the facts, Arizona occupies an unusually favorable position for the growing of grapefruit. We can produce fruit equal to or better than grapefruit grown elsewhere at very low cost and are able to sell the fruit at a very handsome profit either at home or abroad.

Specialized Crops

WINTER head lettuce has come into rapid prominence also and 9,000 carloads were shipped out of this valley the past season to all parts of the United States. Other winter vegetables are being grown successfully at seasons of the year when they can not be produced in other parts of the country.

DATES Dates promise to become one of our major products. The areas throughout the United States where dates may be grown are extremely limited, and the Salt River Valley seems to be one of the favored localities.

CROP VALUE About 90,000 acres are devoted to the growing of alfalfa. The acre value of this crop in 1928

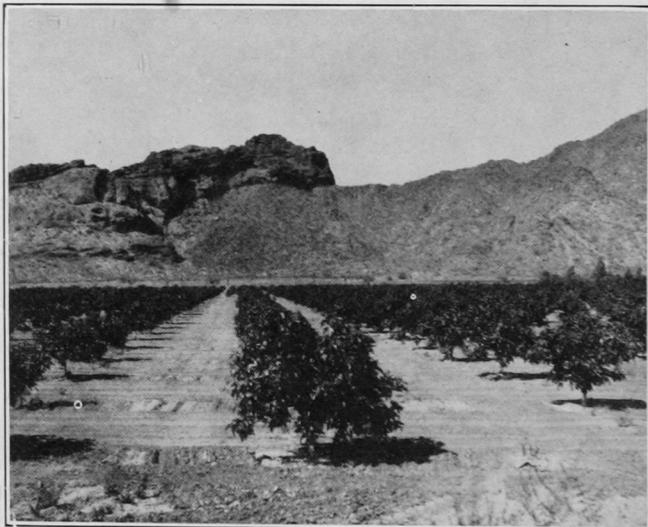
as estimated by the Salt River Valley Water Users' Association was \$85 an acre. Short staple cotton with an acreage of 90,000 acres is valued at \$88 an acre. Long staple cotton with 50,000 acres produced a crop worth \$123 an acre. The bearing citrus fruit was credited with 3,000 acres yielding a revenue of \$431.25 an acre. Lettuce with 15,000 acres produced a crop valued at \$245 an acre. Cantaloupes with 10,200 acres yielded a crop valued at \$252 an acre.

There are opportunities for the small farmer in various lines such as dairy farming, fruit farming, poultry growing, date farming, or the raising of some particular specialty crop which here offers unusual inducements. There are some large operators with hundreds of acres devoted to the production of one or two crops such as cotton, alfalfa, etc., and both the large and the small scale farm are profitable.

SHEEP. Herds of range sheep are brought in from the grazing districts of the higher elevations and pastured here throughout the winter and after shearing are taken back to the range.

Country Homes

THE home surroundings and all that goes to make life worth while seem to have been assembled here in the Salt River Valley in such a way as to make country life especially attractive. Paved roads extend out through the valley. Nearly 400 miles of these roads form a network which makes every farm either on a paved road or close to a paved road. The daily paper, rural mail, telephone and radio keep a country home in touch with all the world. Paved level roads make it possible to move the crops with a minimum of expense of time and of energy, and also make it possible to enjoy the facilities of a modern city within short driving distance. Electric lines have been extended bringing the electric power produced by the same water that irrigates



Grapefruit Grove in Arcadia

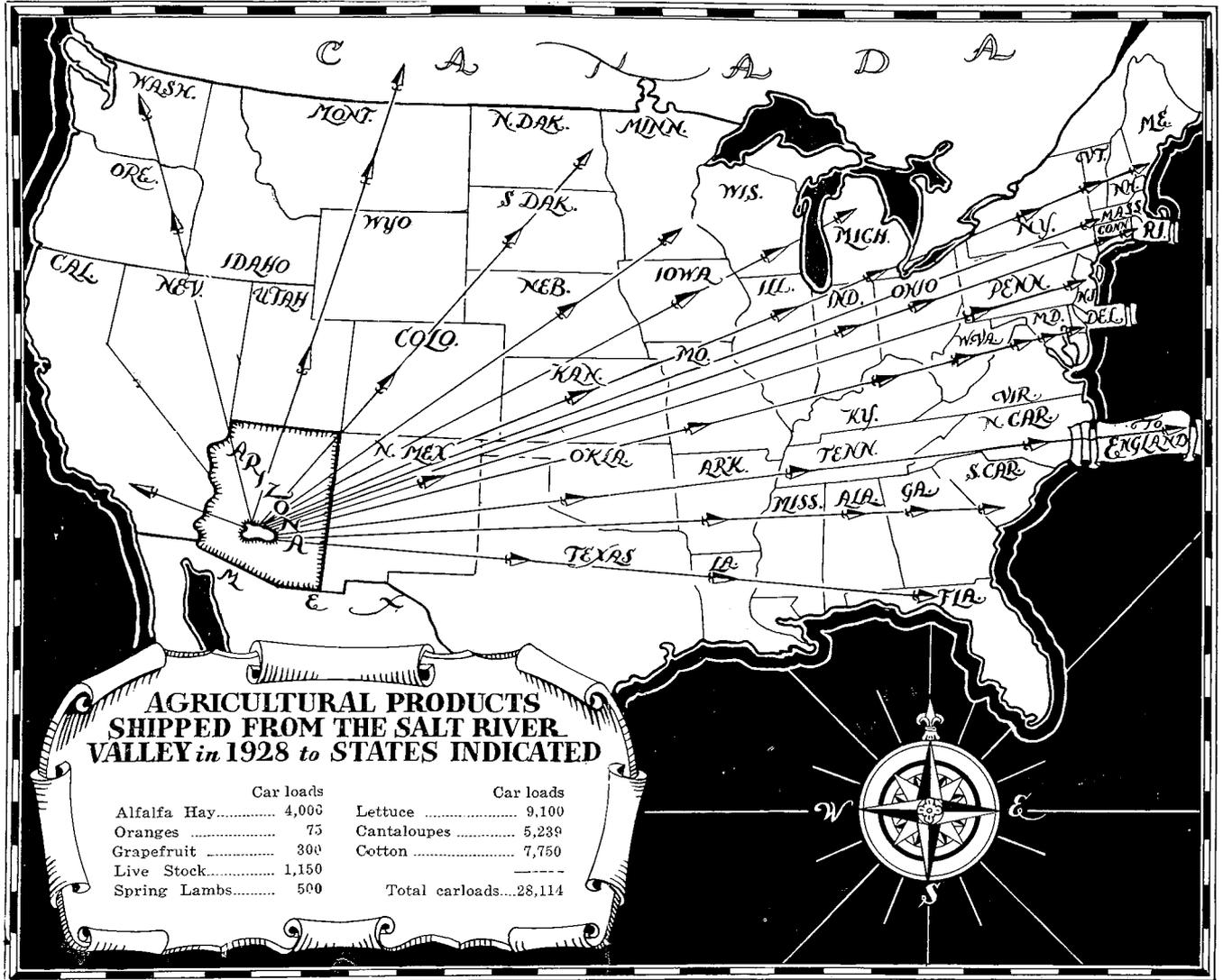
the land to the farm home for lighting, cooking, or the operation of pumps for pressure water systems, and the innumerable uses to which electricity is being put in this age.

In addition to the Salt River Project before mentioned

there are several other projects which have been recently developed, and land under some of these projects may be had at lower costs than in the old project.

The amount of money one should have to begin agricultural operations depends very much upon the line of

Distribution of Arizona Agricultural Products

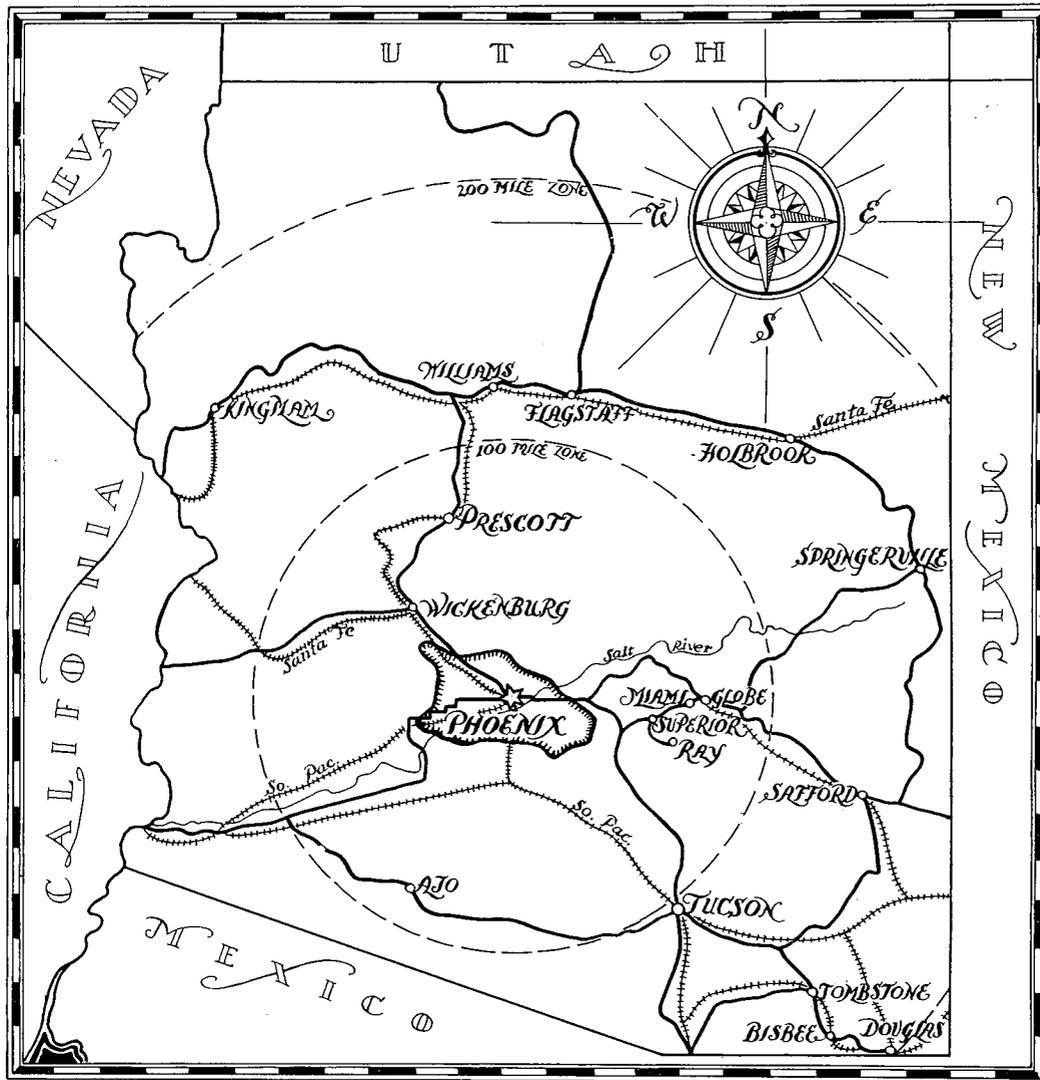


The Salt River Valley is producing lettuce, cantaloupes, citrus fruit and other crops which are shipped to 44 of the 48 states of the Union. Most of these products go to states which either do not produce these crops or do not produce them in the season they mature in the Salt River Valley.

farming which one expects to follow, and upon this would also depend the acreage required. Ordinarily for best results one should have a capital of from four to five thousand dollars or more, although there are many who have succeeded well with less, but one should plan to make a substantial payment on his land investment and

reserve a sufficient amount to purchase the necessary equipment and retain a working capital. Special folders are available covering most of the important crops and these will be sent upon request, and special inquiries about agricultural or horticultural conditions in the Salt River Valley of Arizona are welcomed.

Local Trade Areas for Salt River Valley Products



Markets
in Zone
Areas as
Shown on
Map Are
Easily
Reached
Over
Improved
Highways

A splendid system of highways connects the Salt River Valley with other towns in the state. Most of these other towns do not grow sufficient products to supply the demand. By rail and by truck, fruits, vegetables, dairy and live stock products are delivered to the other towns within a radius of 125 miles from Phoenix.



Method of Irrigating Citrus in the Salt River Valley.

The Dairy Industry

By W. A. Van Sant, President
Maricopa County Herd Improvement Association,
Glendale, Arizona

EXPERIENCED dairymen in selecting a location in which to engage in the dairy industry will realize the vital part the following considerations play in the ultimate success of dairying:

ADVANTAGES. While this industry is comparatively young in the Salt River Valley it is of sufficient age that certain advantages, fully determined by actual experience, have encouraged those actively engaged to broaden their scope of operations and to unhesitatingly predict a wonderful growth in the future.

LOW OPERATING COST. The Salt River Valley dairyman does not find the necessity for expensive dairy barns for the housing of his herd; the fact that our cattle are more than usually healthy may be attributed to the fact that green feed may be obtained the entire year; no sudden changes of temperature, no extremes of wet, dry and cold weather which contribute so largely to disease are experienced.

ALFALFA BASIC FEED. Proper feed at a reasonable cost is another favorable factor; alfalfa remains green through the entire year and is the basic food ration. Supplemental feeds are largely cotton seed meal, rolled barley and the grain sorghums, all of which are grown in the valley and in many instances by the dairyman himself.

Paved roads to market, good prices for dairy products, cheap electric power service, periodical testing for tuberculosis and other cattle diseases under Federal supervision, combined with careful selection of breeds

best adapted to the locality are further important factors concerned with the past and present success of the industry and promise much for the future.

MARKET. If none but the local market is considered and the industry is to keep pace with the increase in population of the valley, using the past two years as a basis, no fear should be felt as to over-production.

One of our noted experts has said: "Opportunities for dairying in the Salt River Valley are the best I have ever seen. With all natural conditions in the dairyman's favor, I expect to see this valley develop into one of the nation's largest and most prosperous dairy sections.

Poultry in the Salt River Valley

By Lionel Kendrick,
President. Poultry Producers of Arizona, Inc.

"United we stand, divided we fall," is a truism no less true in poultry than in any other activity.

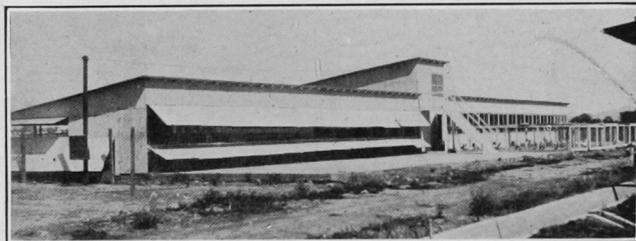
While this valley is ideally situated for poultry culture, the most vital factor to success is the return financially to the producer of eggs. In the past we have overlooked this most important point. Since the advent of the Poultry Producers of Arizona this condition is changing for the better very fast.

The business of merchandising eggs has to consider the market 12 months in the year. The grower who thinks of his market when his hens are laying and forgets it the rest of the year, has no market when he has eggs and no eggs when the market seems good. Therefore, the function of the association is to take care of these factors that can best be handled collectively, such as the market price; what is it? who makes it? and why?

The storing of eggs during the flush season requires cold storage space at a reasonable cost to the user. Adequate finances to store eggs during the season of heavy production is also necessary. These things have been done.

Then, too, the Arizona Egg Law is perhaps the last word in legislative advance for the protection of the consumer and the producer.

So today, due to the work of the pioneers in the cooperative marketing of poultry products, the future of all poultry producers in the valley is far in advance of the position in years gone by.



Poultry House, U. S. Experimental Station, Glendale.



Country Home in the Salt River Valley.

Date Growing For Arizona

HISTORY. The first dates coming to bear in Arizona were grown from seeds. Only one in several hundred proved to be of good quality. This is the same experience that other countries have had for some thousands of years.

For nearly thirty years, however, dates of many varieties imported from the old world, have been grown in limited numbers, and it has been possible to determine which of these varieties are of superior quality and best suited to commercial production under the climatic conditions peculiar to Arizona.

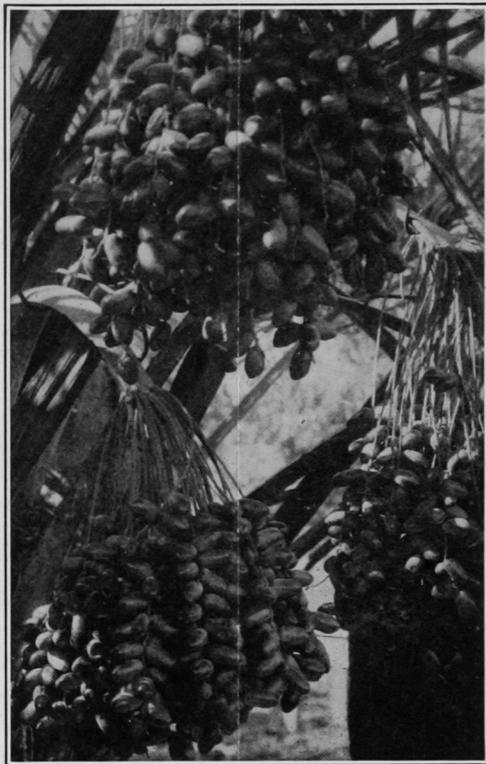
GENERAL. In all date producing regions of the old world where the water supply is limited and population is increased to the maximum that may be supported by local production, dates have superseded all other agricultural products since the growers could produce dates and exchange them in the market for more of other food and clothing requirements—grains, meats or cotton—than could have been produced on the same land had it not been planted to dates. It shows that where dates can be grown, they are profitable.

AREA SUITABLE FOR DATE GROWING. Because of the long growing season, high summer temperatures, relative lack of rain and humidity, abundant supply of good

land and good water, Arizona is probably the largest and best date producing region in the world. This fact is recognized by scientists who have studied the situation.

VARIETIES. There is a wide range in date varieties but the number best suited to planting in any different locality is relatively small, due to the fact that some varieties are susceptible to rain, dew or frost damage to such an extent as to render their production unprofitable. Other varieties lack that excellence of flavor, size, color, etc., which may be stated under one word "quality" which is absolutely necessary if the maximum returns are to be received in the market. Everywhere people are becoming more discriminating and it is more and more recognized that quality is the first consideration in the production of any agricultural product. This is more than ever necessary in date production. Certain varieties have proven themselves peculiarly adapted to conditions in Arizona and it happens that they are also known the world over wherever dates are grown, because of their high quality. Arizonans anticipating growing dates should first make the most thorough study of varieties and plant only the best.

CONCLUSION. The plantings must of necessity be gradual because of the limited number of offshoots of the best varieties available for planting and because of the fact that successful commercial plantings cannot be produced from seed. However, a very considerable number of palms of best varieties are now in production in Arizona and there will be a steady increase in the planting of this very interesting crop which will undoubtedly prove to be here, as it has elsewhere, the most profitable of all agricultural crops.



Cluster of Iteema Dates in the Date Gardens of Colonel Dale Bumstead.

A Country School in the Salt River Valley. Arizona schools are second to none.



New Settlers Aided by County Agent

By Harry A. Stewart
Agricultural Agent, Maricopa County

The problem of agricultural production in this county is probably as intense and difficult, if not more so, than any other similar agricultural area. The tremendous diversity of growing both general and sub-tropical horticultural crops make it necessary that the farmer use every available piece of information or data obtainable. Where a very careful study of conditions and cultural practices is made, farming has been found profitable.

Several commodities can be grown here when they are out of season in other agricultural areas, which gives them an open period on the market. Then there are many acres in the Salt River Valley that are now being devoted to crops that in no way compete directly with any like crop in the United States. Apparently there is a big field for this type of development due to the extreme warm weather, with a long growing season and an abundance of irrigation water which makes it possible for this area to obtain maximum results from many horticultural and general crops that at the present time have an unlimited demand in the consuming markets.

Cotton

By K. D. Hellwarth,
President, Arizona Pima Cotton Growers Association

Maricopa County produces two distinct types of cotton, Pima, long staple, and Upland staple, commonly termed here "Short cotton."

The staple of Pima runs from 1½ inches to 1¾ inches, averaging 19-16 to 15-8 inches in length. That of the Upland varies from 1 to 13-16 inches with an average of 11-16 to 11-8 inches.

Pima cotton is acknowledged by spinners everywhere as the best cotton produced in commercial quantity anywhere in the world. It is used for the finest, sheerest fabrics.

Average yield per acre is very high and under good business-like conditions cotton is uniformly profitable. The production last season for the county was about 30,000 bales of Pima and 40,000 of Upland.

The Arizona Pima Cotton Growers' Association is the state cotton cooperative marketing association, affiliated with the American Cotton Growers' Exchange, with first class sales outlets in all cotton buying centers of the world. The past season it handled 65,677 bales, more than 45,000 of which were exported. Through its ownership of stock in ginning and oil mill and compress properties and through intermediate credit bank connections it has performed notable services to its members. Next year's volume promises to double that of the past season.

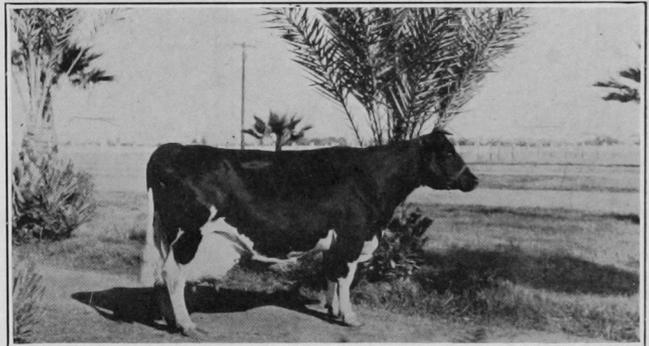
Citrus Fruit in the Salt River Valley

By I. de R. Miller, Manager
Arizona Citrus Growers' Association.

Judged by its past, the citrus industry of the Salt River Valley has a bright future. Forty years experience has proved that the general conditions are favorable. During this period, while there have been low points of temperature, in only one instance has there been a truly severe injury to groves; while the amount of fruit injured in freezes has been a very low percentage of the total crop produced.

This temperature record has been aided by two local factors: that the Navel crop is picked and shipped before the approach of the coldest weather, which is to be expected in late December and early January. This is also true of a considerable proportion of the grapefruit crop, while that which remains later on the trees is hardy and in general suffers little.

Soil conditions are also favorable to growth of trees



Edenvale Pearl Ormsby-478160-Grand Champion at many Pacific Coast Fairs. Owned by Dudley B. Webster, a Salt River Valley dairyman.

and production of fruit crops. Water is plentiful and sufficiently cheap to offer no handicap. Injurious pests are practically negligible. No smudging or fumigating is done. Costs of organic fertilizer are low. With these potent factors in its favor, the citrus industry should increase and continue to be profitable.

A great essential in this district, more important here perhaps than anywhere else, is the excellence of the stock planted. Desert conditions are strange to citrus trees and emphasize the value of strong over poor trees.

Returns from grapefruit for the past few years have averaged \$600.00 an acre for mature groves; oranges \$500.00 per acre; with an expense of production of \$150.00 an acre, not including interest, picking or hauling.

(Cut on cover page is a four year old Salt River Valley grapefruit tree with A. D. Shamel, noted citrus expert of California who selected the buds for this grove.)