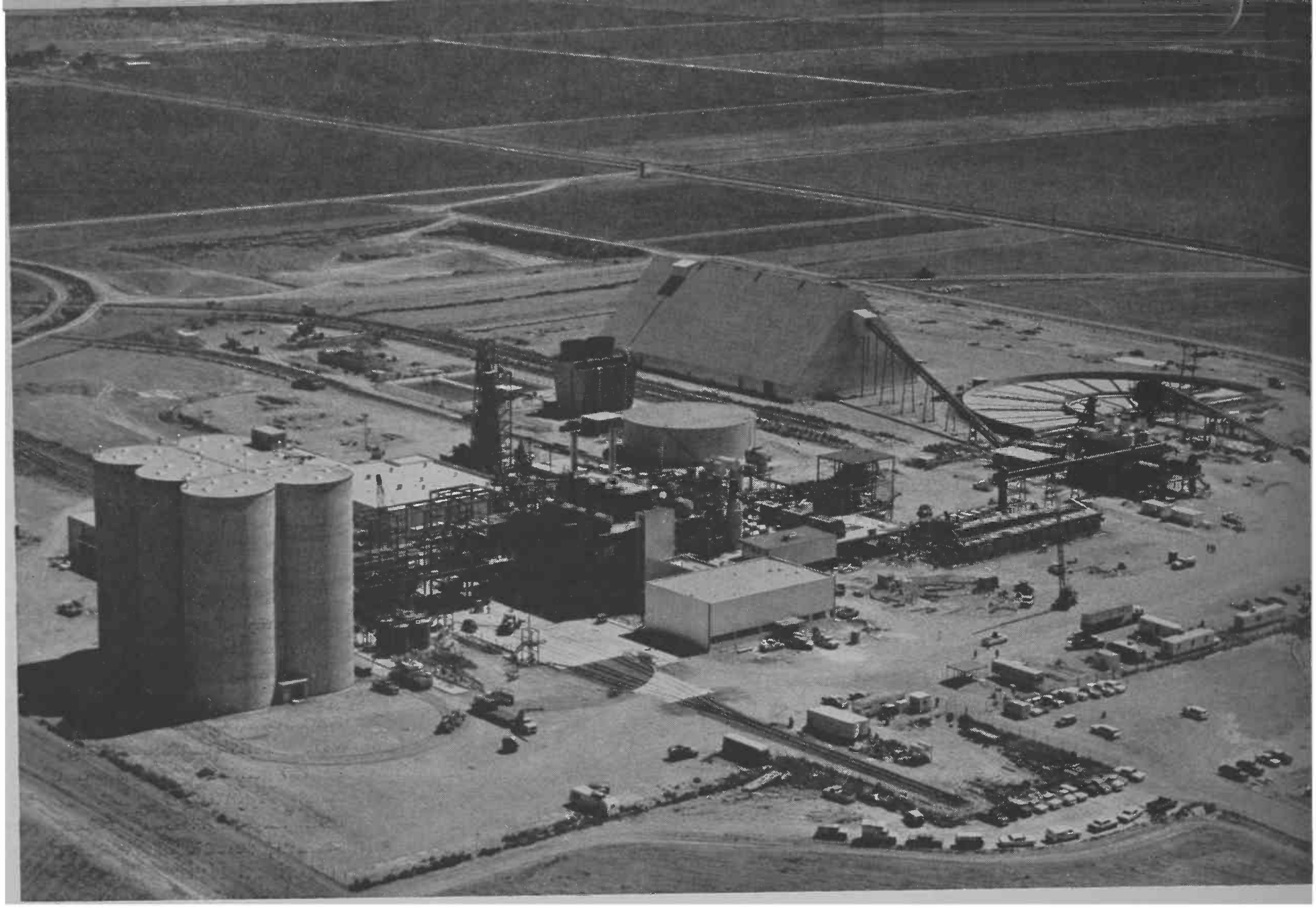

AIR VIEW OF huge Spreckels Sugar Co. $20 Million processing facility at Chandler. Plant will handle over 4000 tons of sugar beets every 24 hours. First "campaign," sugar-making season, is scheduled to begin next spring.

Sugar Industry in Arizona Revived With $20 Million New Plant Up at Chandler

By David C. Carter

Arizona's farm economy will be greatly broadened in 1967 by what many residents of the state doubtless regard as a new crop — sugar beets.

Unfamiliar though the bountiful beet is to many Arizonans, it has a history in the state dating back to 1897, which coincidentally enough, is the very year the Spreckels Sugar Company was founded.

Back before the turn of the century, attempts were being made to establish the sugar beet crop in the Salt River Valley to supply a sugar factory near Glendale. The factory was completed shortly after 1900 and did indeed process a small amount of sugar.

Was Doomed to Fail

However, a shortage of irrigation water, coupled with white fly infestation on the agricultural side, together with technological difficulties on the manufacturing side, doomed the venture to failure. By 1912 the Glendale sugar beet factory had been dismantled and its sugar making machinery moved elsewhere.

A much brighter future lay in store for Spreckels. From its formation in 1897 the company grew and prospered until it now ranks as the third largest sugar beet processor in the U.S.

Currently Spreckels operates processing facilities in the California communities of Salinas, Manteca,

(Continued on Next Page)

The author is assistant to the president of the Spreckels Sugar Company.

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Woodland and Fresno. Last year the company contracted with independent growers in California and Nevada for the sugar beet production from over 150,000 acres.

But of principal interest to Arizona is Spreckels' move into this state with its latest expansion, a $20 million sugar beet processing facility now nearing completion just south of Chandler.

Ready For '67 Season

The big mill, located on a 650 acre site adjacent to Arizona Highway 87-93, has been under construction since November, 1964. It is scheduled for completion late this fall after which it will undergo thorough testing while awaiting Arizona's first commercial sugar beet harvest which gets under way in the spring of 1967.

On the manufacturing side, the plant will employ approximately 250 persons and its "campaign" as sugar men call the sugar making season will last only 100 days the first year. This short operating season is based on the anticipated total production available from Arizona's 1966 sugar beet acreage allocation. The 20,000 acres granted to the state from the national sugar beet acreage reserve should yield about 400,000 tons of sugar beets.

In terms of capacity, Spreckels' Chandler factory will handle approximately 4200 tons of sugar beets every 24 hours. From this input it is expected that refined sugar production will be slightly over 1,000,000 pounds each day.

Principal by-product of the plant will be molasses dried beet pulp, a highly regarded cattle feed. Pulp recovery averages approximately six percent of the delivered weight of the clean beet.

200 Get Allotments

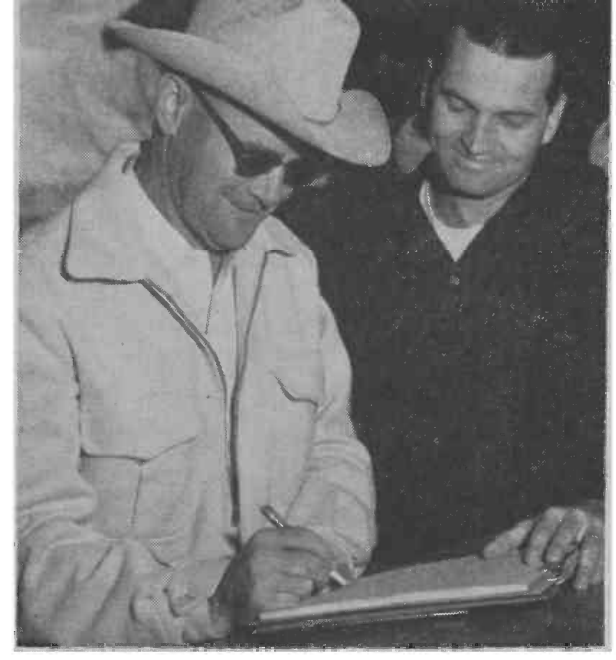
On the agricultural side, upwards of 200 Arizona growers will produce the first year's supply for the facility. Planting will begin in September of this year, with the heaviest concentrations of acreage located in the Chandler area, the West Phoenix area and Pinal County.

Arizona growers can conservatively expect yields averaging in the 20 to 22 tons per acre range, on the basis of extensive tests conducted over the past several years by the Spreckels agricultural staff in cooperation with University of Arizona agricultural scientists.

Sugar beet indicator plots in Arizona have produced yields up to 32.5 tons per acre. In a series of tests conducted in 1965-66, of the 10 highest producing test plots in the Salt River Valley, the median yield was 28.2 tons per acre.

According to Larry Burtch, chief agronomist for Spreckels, sugar beet research conducted by The University of Arizona prior to 1963 helped Arizona obtain the sugar beet acreage allocation in the first place.

"The University's research scientists gathered data that pointed out the agricultural feasibility of producing the crop here," declared Burtch. He added that the important work carried on by The University since that time will be invaluable in helping Arizona growers produce the best crop possible.



SIGNING HIS CONTRACT to grow beets is Joe Sheely (left) who farms west of Phoenix. Observing the signing is Roger McEuen, Spreckels' field superintendent.

FIELD DEMONSTRATIONS sponsored by the company draw interested growers from a wide area in Arizona. Here attention centers on a mechanical thinning machine, at a field day held near the Chandler plant.

May Widen Growing Area

"Additionally, research presently under way by Dr. Fred Turner in Safford, by Dr. Ernest Jackson in Yuma and by Extension agents Dr. Robert Dennis, Dr. Ivan Shields, Jim Little, and Carmey Page will provide valuable data if circumstances permit contracting for sugar beets in areas other than the present 40-45 mile radius of the Chandler mill," Burtch opined.

Spreckels' current policy is to contract for beets with the above limitation on the basis of a four-year rotation. Total acreage for any one Arizona farming unit is limited, by provisions of the Federal Sugar Program, to 160 acres.

The contract between Spreckels and the individual Arizona grower stipulates that payment to the producer for each ton of beets he delivers to the company will be governed by two factors: (1) the average sugar content (percent sugar) of his beets; and (2) the net return received by the processor for each 100 pounds of sugar sold in a year's time.

Thus a grower's income from his sugar beet crop will be directly related to both the amount of sugar he has produced and to the market price of the finished product for which he has supplied the basic raw material.

Quality Is Recognized

The good operator, producing high sugar content beets with average to good yields will realize greater returns per acre. This same operator is not, however, financially penalized by a lower average yield and sucrose content realized by his neighbor.

Nor will the Arizona grower wait until the end of a "crop year" before

(Continued on Next Page)

Can Alfalfa's Summer Slump Be Eliminated?

Growers of alfalfa here in the Southwest have been concerned with what is called "summer slump" in alfalfa growth. Recently, University of Arizona researchers started to search out some answers as to why alfalfa's summer slump takes place.

The researchers are Dr. M. A. Massengale, head of our Agronomy Department, and Gayland D. Robison, one of his colleagues.

An initial approach was to determine if the severity of summer slump could be reduced by cutting or harvesting management. Alfalfa plants were cut at different stages of maturity and at one and four inch stubble heights from the ground.

Results were best when alfalfa was cut at four inches of stubble height when 25 per cent or more of the plant had open flowers. However, they point out that stage of growth in terms of percent bloom at cutting time influenced growth and total production more than varying cutting heights. When plants were cut at early stages of growth, the four-inch height of stubble cut gave better results than at later stages of growth.

Another aspect of the research is that the four-inch height of alfalfa stubble cut left more leaf area on the rambling plant than closer cuts. This, the researchers feel, made less demands on the reserve carbohydrates stored in alfalfa roots.

With only two years of experimentation behind them, neither researcher can predict whether the summer slump may some day be eliminated. But research will continue until more information and possibly more improvements have been accomplished.

Figure Proper Space For Lawn Fertilizer

Lawn fertilizers and pesticides are often purchased with little or no consideration given to the square footage to be treated. For the most economical purchase, and efficient use of any lawn materials, it is suggested that the lawn be measured and the square footage determined.

This job can easily be done by multiplying the length of the lawn by the width. For example, a lawn 60 feet wide and 80 feet long will contain 4,800 square feet. If a fertilizer recommendation calls for 20 pounds per 1,000 square feet, then it would be necessary to purchase approximately 100 pounds of the fertilizer.

It is a good idea to mark off the lawn in plots of approximately 1,000 square feet each when herbicides or pesticides are being applied. This enables the homeowner to apply the correct amount of the material much more accurately than by estimating the area to be covered.

In the case of herbicides, this can be extremely important since many herbicides applied in excess of the amounts recommended will cause burning of the turf or if applied in less than recommended amounts will not give proper weed control.

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receiving the cash income from his sugar beets.

By the 15th of the month following delivery of the first of his crop, the grower will receive from the company an initial payment based on an estimated net selling price. This first payment has historically established itself at approximately 80 percent of the final net selling price. During the course of the year, additional payments will be made for every ton of beets delivered to that date, on the basis of an increased net as experience indicates the general area of refined sugar prices. Finally, at the end of the crop year, CPA audits will determine the exact net selling price of all Arizona produced sugar for that 12 month period. Final payments will then be made to all growers for each ton of beets.

Additionally, growers will receive compliance payments for abiding by the restrictions and requirements set forth in the federal sugar program governing sugar beet production. The grower applies to the State ASC office upon completion of harvest, and payments follow in approximately six to eight weeks.

Company Counsels Growers

An important factor in the grower-processor relationship involves the work of the Spreckels Sugar Company's agricultural staff. The arrangement is rather unique in the agricultural industry.

Upon signing a contract to produce beets, the Arizona sugar beet grower receives the year-around services of a trained agricultural field man employed by Spreckels. In addition to offering technical information and advice, the field man will take samples of the grower's beets to ascertain probable yields; assist the grower whenever possible in locating needed equipment and field labor; coordinate the harvest; and generally help the grower produce the best possible crop.

The field men assigned to the prime production areas for Arizona's initial commercial crop are: West Phoenix Area — Roger McEuen; Buckeye — Olen Zirkle, Jr.; South Central Maricopa County — Michael Daugherty; Chandler Area — Jay Hill; Pinal County — Charles Carlson.

These men will work under the direction of James Gardiner, a well seasoned veteran of sugar beet agronomics and Spreckels' agricultural superintendent for Arizona. Additionally, they will be assisted by Jack Brickey, Spreckels' agronomist assigned to Arizona. The entire Arizona agricultural operation is being directed by Ralph Lambdin, district agricultural manager.

Learn at Field Days

A series of field days sponsored by Spreckels will acquaint Arizona growers with equipment and beet agronomics. The first of these field days held at the Chandler plant covered the general areas of planting, thinning, cultivating, topping and harvesting. In addition, Spreckels agricultural research in cooperation with the University of Arizona is continuing a program aimed at developing improved varieties of seed that will produce beets of greater size and sugar content, with increased resistance to disease and extremes in temperature. In short, all the bases are being covered to assure that Arizona's reborn sugar beet industry thrives.

The industry, which has already made an impact on Arizona's economy with the multi-million dollar mill construction, will soon begin adding more millions to the economic life stream of the state.

It is estimated that crop payments for the first year will exceed $5,000,000. Factory payrolls will amount to another $1,500,000 annually, and local purchases of goods and services to operate the $20,000,000 facility will boost the economy still further.

How sweet it is! All of it.