

# 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. Masengale, 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.

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## 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 economi-

cal 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 Com-

pany'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 agronomy 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 agronomy. 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.