

New System Expedites Handling of Cotton

Lindon Cockroft

Farmers and ginnerers are faced with new problems as the harvest season is shortened due to the use of mechanical harvesters. Ginning capacity is strained to the limit as seed cotton wagons pile up in the gin yard during the two months of rapid harvesting.

The result is poorer quality cotton due to overspeeding the gin machinery, high drying temperatures, and ginning sweaty cotton from the wagons. A larger investment in wagons is also necessary because of the longer waiting period at the gin. The high fixed cost of ginning machinery used over a shorter season increases the ginner's fixed cost per bale of cotton.

Bulk Storage Plan

A system of bulk storing seed cotton can lower costs to farmers and ginnerers, extend the ginning season, and improve the quality of lint cotton. Most important, the ginner's customer relations can be improved by the rapid return of wagons to his customers.

A successful temporary bulk seed cotton storage system has been in operation for several years at the Wasco Gin Cooperative, Wasco, Calif. The continued additional investment of the cooperative each year in refining this system is testimony of the value of the system to the members.

The system utilizes an unloading center to get the seed cotton from the farmer's trailer into the portable baskets. The baskets are moved by means of hydraulic lift carriers to the storage area on the gin yard where they are placed in rows. Baskets are grouped together by growers and by first picking, second picking, etc. As ginning capacity becomes available, the baskets are transported by hydraulic lift carrier and tractor from the basket storage area to one of the three gins owned by the cooperative.

All of the gins are at the same location. The full capacity length of season lasts about eight weeks, during which the three gins are operating 24 hours per day with two 12-hour shifts. Before and after

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this period the gins are operated with day shift crews only as needed.

Reloaded By Suction

The unloading center structure is approximately 25 feet in over-all height and constructed of steel beams. The baskets are pulled beneath the structure and the farm trailers along one side. Two suctions remove the seed cotton from the wagons, utilizing a 60 H.P. motor and 50-inch fan. The seed cotton passes through a rock catcher and separator and is conveyed to the desired place over the basket by screw auger. Trap doors under the auger are opened and closed to distribute the cotton evenly over the length of the basket. Long hoes are used to spread it out to the sides of the basket.

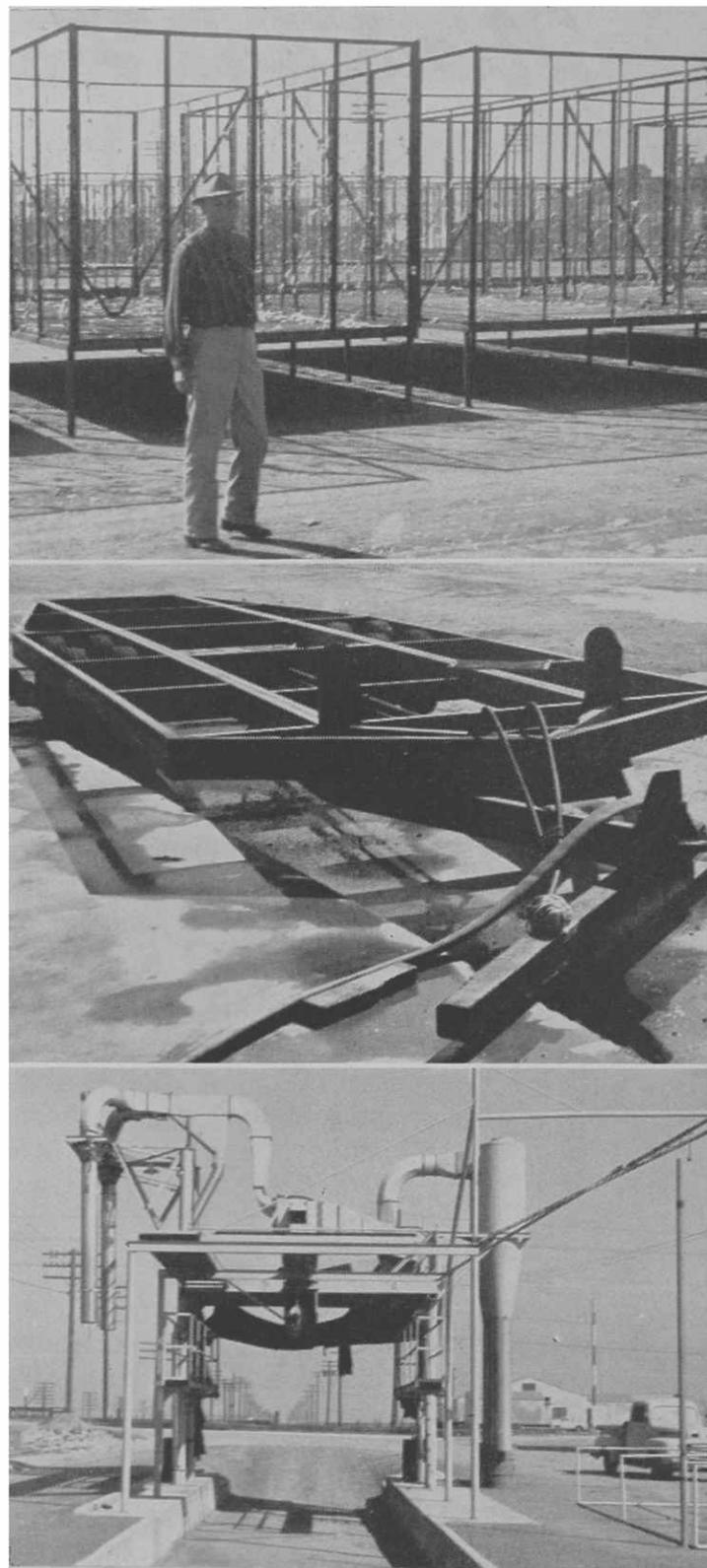
On the gin yard, the cotton is tested in the wagons with a moisture meter. Only cotton which has 10.5 per cent or less moisture as tested in the wagon is unloaded into baskets. Under average conditions the moisture content is reduced 2 per cent as the cotton is suctioned through the unloading center. The cotton must have 8.5 per cent or less moisture in the baskets to store well without heat damage or discoloration.

Baskets of Simple Construction

An angle iron framework, wooden floor, and chicken wire fencing are used to construct the storage baskets. Each basket is 25 feet long, 8 feet wide and 10 feet high. Each holds 15,500 pounds of seed cotton, which is approximately 10 bales of lint cotton. Height of the eight steel tube legs on the basket is 26 inches. Eight inch square pieces of flat plate steel are welded on the bottom of the legs to act as feet in supporting the basket. The soil in the basket area has been mixed with oil and compacted to lay the dust.

Originally, canvas covers were used to protect the cotton, but they were difficult to handle and quickly deteriorated. At present, sheds are being constructed to cover the baskets in the storage area. Simple pole type construction with corrugated steel roofing is being used for the shed.

Some advantages for temporary cotton storage in baskets are:



TOP TO BOTTOM — (1) The carrier baskets; (2) Hydraulic lift for moving baskets; and (3) Unloading center.

1. Better service in returning wagons to farmers more quickly as mechanical harvesting becomes almost 100 per cent and the season shortens.
2. Increased capacity of the gin by extending length of season, can double capacity of a 5,000 to 6,000-bale gin.
3. Increased quality and grade of cotton ginned by slower ginning with less heat and cleaning, reduces staple cut, decreases neps—reduces breaks in spinning.
4. Eliminates ginning sweaty cotton. Sweat commences 48 hours after harvesting in the farmer's wagon; cotton gets gray color.
5. Possibly an increased return to farmer—gain in weight by moisture and increased trash.
6. Reduction in cost of wagons \$600 vs. baskets \$150. Reduction in cost per bale because fixed cost per

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Nursing, Home Economics Sponsor Conference For Race, Cultural Groups

Ruth C. Hall

The Schools of Home Economics and Nursing of the University of Arizona have cooperated in holding a conference on cultural influences and their relation to health services and home economics programs. Sixty-two professional home economists and nurses registered for the work which was offered this summer.

Also attending were some unusually gifted resource people. Mrs. Annie Wauneka, chairman of the Navajo tribal health committee, Window Rock, Ariz., is a most extraordinary Navajo woman. She works untiringly for her own people and related much of this at different sessions of the conference.

Dr. Guillermo Soberanes and Dr. Gaston Cano, both physicians from Hermosillo, Sonora, Mexico, offered information about the native populations in Mexico and about certain Indian groups there. Mr. Lyle Saunders, sociologist from the University of Colorado School of Medicine, gave basic information about cultures and spoke authoritatively of his work with peoples of minority groups in the Southwest.

Mr. James Officer, Special Assistant on Indian Affairs to the Secretary of the Interior, spoke of his work with Latin-

Americans and told how cultural change occurs in the Southwest.

In addition, the University of Arizona supplied the conference with anthropolo-

gists, home economists, sociologists, nurses, economists, and others whose background and training enabled them to participate in an effective way.



ATTENDING THE UA conference and speaking at its sessions were, left to right, Mr. Lyle Saunders, head of the Department of Preventive Medicine and Public Health, University of Colorado School of Medicine; Mrs. Annie D. Wauneka, chairman, Navajo Tribal Health Council, Window Rock, Ariz.; and Dr. Gaston Cano, Assistant Director of the Health Center, Hermosillo, Mexico.

Dr. Hall is Director of the School of Home Economics.

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- bale is relatively high due to the short season.
7. Lengthening season enables the gin manager to secure better quality labor.
 8. Keeps gin operating during rainy weather when mechanical harvesting is stopped.
 9. Gin crews can be called in only when enough cotton is on hand for an extended run.

10. Larger lots of an individual farmer's cotton can be run at one time. Also, larger quantities of cotton of similar quality can be ginned at one time, making resetting of ginning machinery less frequent.

Possible disadvantages are:

1. Additional cost of the temporary storage may or may not be offset by ginning cost savings and a higher return from the cotton (including possible weight gains).

2. Holding a grower's cotton in temporary storage with the possibility of a falling market price and deferred sale may require changes in marketing methods by gin managers.

It has been possible for the Wasco Gin Cooperative to overcome these problems and reap the advantages of seed cotton storage and custom ginning. Arizona's gin operators might wish to look into the profitability of temporary cotton storage.