loose soil back into the bottom of the furrows. The operators set the beets in these furrows by hand. Small beets are set upright and, if too short for the depth, are placed on the sides of the furrow. Larger beets are placed in the loose soil in the bottom of the furrow and extra large or extra long beets are placed on an angle, as shown in Fig. 1C. The tractor is run in low gear, the speed depending upon the spacing desired.

The rate of transplanting varies with the spacing, row length, operators, beets, etc. With beets averaging 3 inches in diameter, spaced 18 inches apart in rows 300 feet long, three men, with some experience, were able to transplant 2,500 beets per hour.

After transplanting, the beets are covered by using beet cultivator discs. Two rows are covered at a time, with a disc traveling on each side of a row throwing the soil over the plants. Better results are obtained by going over the field twice rather than by trying to cover the plants completely in one operation. Fig. 1D shows a completed seed beet planting after the beets have been covered by the discs. Irrigation furrows may be made where it is desirable to irrigate immediately.

The resulting stand of beets in the field where the machine was used was equal to the stands obtained by hand planting and the man hours required was only a fraction of those necessary for hand planting.—FRANK F. LYNES, Beet Seed Breeding Department, Holly Sugar Corporation, Sheridan, Wyo.

ANNUAL LESPEDEZAS ARE USEFUL IN CONSERVATION-TYPE ROTATIONS FOR THE SOUTHERN PIEDMONT

THE annual Korean and Kobe lespedezas are rapidly finding a place in crop rotations in the Southeast. Preliminary results obtained from runoff plots located on Cecil soils at the Southern Piedmont Conservation Experiment Station, Watkinsville, Ga., indicate that 2- and 3-year rotations consisting of small grain, Kobe lespedeza and cotton are practical for both land protection and soil improvement of the moderately eroded crop land of average 7% slope in the Southern Piedmont.

During the rotation cotton years, lespedeza residue after effects were responsible for lowering the water losses, reducing soil losses by two-thirds to three-fourths, and substantially increasing the cotton yield. The check method was continuous cotton, fertilized the same as the rotation cotton.

A review of 4 years' records (1940-43), obtained from comparable runoff plots representing normal terrace-interval slope length of 70 feet on a 7% slope, indicate for continuous cotton an average annual loss of 22% of the rainfall as runoff, 29 tons per acre soil loss, and a yield of 0.45 bale per acre.

During the same period, two successive cycles of a 2-year rotation consisting of oats for grain-Kobe lespedeza for seed, then cotton, allowed as a rotation annual average but 15.5% runoff and only 7.4 tons per acre of soil loss. The rotation cotton yielded 0.63 bale per acre, or 54% increase over continuous cotton grown the same years.