MEASURING CROP YIELDS ON A COMMUNITY SCALE

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WHEN the Soil Conservation Service demonstration project Tex-3, near Dalhart, Texas, had been in operation for about three years it was apparent to the project staff members that satisfactory results were being obtained by methods of water conservation, the chief of which were contour farming and terracing. However, it was felt that these observations alone were not sufficient to convince many persons except those who had the opportunity to visit the project and inspect the results. So a method of measuring the yield of grain sorghums on all the fields in or near the project area was devised, and the information gained was significant enough to justify an explanation of the method and an analysis of its accuracy.

This paper is not intended to enter the field of research, as the yield measurements were made for only one year. It is planned to repeat them each year but conditions will not be controlled from year to year. Hence it is felt that the value of the measurements lies in the large acreage which they represent.

The object was to perfect a dependable, quick, and practicable method of measuring crop yields of fields ranging up to 640 acres or sometimes larger. The plan must be applicable to any size field of any shape, regardless of the number of acres. In other words, the rate of yield is the information sought. The total yield of a field is then found by multiplying the number of acres by the rate of yield per acre. Although the accompanying results are for sorghums only, the same method, with slight modifications, could be used for small grains.

The yield measurements in 1937 were made primarily to evaluate the terracing and contouring practices being advocated by the Soil Conservation Service. Secondary in consideration were comparison of soil types in yielding capacity and effectiveness of various crop residues in controlling wind erosion. As the work progressed refinements were added, and it is believed that the same measurements