

Is Duane Acker here this morning? Duane Acker is the dean of agriculture at the South Dakota State University at Brookings, and we are happy to have his statement now.

STATEMENT OF DUANE ACKER, DEAN OF AGRICULTURE, SOUTH DAKOTA STATE UNIVERSITY, BROOKINGS, S. DAK.

Mr. ACKER, Senator McGovern, Senator Burdick, and Senator Moss, I speak this morning on behalf of Hilton Briggs, president of the South Dakota State University, Dean Johnson, and our total research faculty of the university.

I would like to outline briefly the past and planned activities of the agricultural experiment station and the South Dakota Cooperative Extension Service of South Dakota State University that pertains to the Oahe irrigation unit.

Completed research undertakings consist of (1) a comparison of incomes under dryland and irrigated conditions as they pertain to the individual farmer and (2) an assessment of the impact of irrigated agriculture on the area and State.

These research project results were made available to the Bureau of Reclamation and were used as part of the basis for the Oahe unit report as published by the Bureau of Reclamation.

Numerous research reports were published as these projects progressed. These reports are available if the committee wishes copies. The final outcome of the total research effort has been summarized, however, by the extension service in a recent leaflet.

This leaflet is about as brief a summary as can be compiled and is attached hereto as a part of my testimony.

Research projects underway but not yet completed that will have direct implications in the Oahe unit area are (1) investigations to determine if tile spacing in the Oahe unit can be safely increased; (2) correlating soil moisture conditions and microclimate with evaporation losses and water requirements of plants in the Oahe area; and (3) correlation of different irrigation and drainage practices, salt accumulations, and soil moisture movement.

In addition to the above, the South Dakota Water Resources Institute has numerous projects that will have implications in the Oahe area although they are not being conducted specifically for the Oahe area.

Other important research that the university hopes to be able to start soon will investigate the feasibility of alternative techniques of irrigation water management in large irrigation projects.

The Oahe Conservancy Subdistrict and other subdistricts in the State have provided the cooperative extension service challenging and rewarding experiences. South Dakota law requires that the creation of taxing entities must be supported by a vote of the electorate.

Each subdistrict covers many counties. It was, therefore, necessary for vast numbers of people to be aware of what was involved in each issue before going to the polls. Cooperative extension assumed this educational task. The issues of subdistrict organization, irrigation district organization, and contracting authority have all been voted upon. Each issue called for another educational program.

Some 27 extension publications have been written and distributed.