GRASSES of Arizona

New Bulletin Just Issued

By Walter S. Phillips

▲ Joshua-tree grassland in Hualpai Valley, Mohave County, Arizona. Tobosa grass and Big Galleta are the principal grasses here. This range is in excellent condition.

On the cover is a drawing of Sideoats Grama, one of Arizona's best all-around range grasses, a vigorous grower, found throughout the state at elevations of 2,500 to 7,000 feet.

While Arizona cannot lay claim to the immense areas of grassland that are dominant in some states west of the Mississippi, grasslands in Arizona do contribute significantly to the economy of this state.

Approximately 25 percent of the state is, or formerly was, grassland. There are two distinctive types: the Desert Grassland of the southeastern corner of the state (largely Cochise County), and the Short Grass areas of northern Arizona. The Desert Grassland of southern Arizona is a northward extension of the Sonoran Grassland, while the grasslands of northern Arizona are westward extensions of the Plains.

Mixed Vegetation

In addition to these areas of grassland, Arizona also has areas of grass mixed with other types of vegetation. In the higher parts of the state, the Western Yellow Pine Forest produces much grass under the open canopy of pines. At lower elevations, Chaparral and Pinyon-Juniper areas also produce some grass. Formerly, even in the desert areas in the driest parts of the state, swales of Tobosa Grass and Big Galleta were of common occurrence. While Bush Muhly at one time grew extensively in desert areas, it is now confined to areas protected by shrubs.

A new publication of the University of Arizona entitled, *"The Grasses of the Southwestern United States,"* describes 363 species of grass known to occur in Arizona. In states known for their grasslands, the number of species is not nearly so high (Illinois 204, Kansas 235, Oklahoma 232). Only Texas, of all the states, has a higher known number of species.

Because Arizona is representative of the entire Southwestern region, the area designation is included in the title.

Thornber Pioneered

This bulletin is an attempt to bring to the hands of the student of grasses, and to the research worker, a tool which will aid in much of our basic range work. Mr. J. J. Thornber, who has been with the University of Arizona since 1901, has been responsible for building up the grass collection of the University herbarium.

Dr. Frank W. Gould, author of the publication, used much of this collection in writing up the information for his bulletin. The distribution of each species within the Southwest is discussed as observed in the numerous collections examined, and members of the Range Ecology Department have added notes as to palatability and extent of grazing by cattle.

In addition to the 363 species described, there is a chapter on the role of grasses in Arizona's flora; a chapter on the structure of the grass plant and flower, written for the beginner; and keys for identifying all the species. Included are 90 illustrations to aid in the identification of the most important grasses of Arizona.

While this is strictly a technical bulletin, an attempt has been made to recognize as many of the common names as possible. These names appear along with the scientific names in the text and are listed in the index. In cases where a common name is applied to several different plants, sometimes not even closely related, the common name was discarded as useless. Some common names are too local for inclusion, being used only on one range or in one limited area and unknown outside these localities.

In a state where grazing, water sheds, erosion control, and the silting of reservoirs constitute an eternal problem, it is hoped that the publication of this manual will aid in a better understanding and appreciation of grasses, one of Nature's best soil binders.

Bulletin for Sale

This publication can be purchased through the University of Arizona Mailing Bureau or from local bookstores for $3.00.

—Walter S. Phillips is head of the department of Botany and Range Ecology.