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INTERMEDIATE WHEATGRASS

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BULLETIN No. 427
DECEMBER 1964

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O A H E

INTERMEDIATE WHEATGRASS

By Alfred E. Slinkard*

Oahe (Oh-wah-hee) is a variety of intermediate wheatgrass developed for high seed and forage yield by the South Dakota Agricultural Experiment Station. Selfed and open pollinated progenies of Ree wheatgrass were selected for high seed-set, forage yield and rust resistance. Four superior clones were chosen to make this synthetic variety.

Description

Plants of Oahe are uniform for blue-green color, strong vigor, an abundance of leaves, large seeds and high seed yield. It has larger and coarser stems than Greenar intermediate wheatgrass. Oahe is similar to Greenar in that it is sod-forming and late-maturing.

Use and Adaptation

Oahe is used primarily for hay, pasture and green manure. It is best adapted to those areas where annual precipitation varies from 13 to 25 inches. It will grow readily in all areas where Greenar has been grown successfully.

Seed Yield

Oahe was distinctly superior in seed yield to other varieties of intermediate wheatgrass tested. Results of a 3-year seed production trial at Moscow, Idaho, are presented in Table 1.

Table 1. Average seed yield in pounds per acre of intermediate wheatgrass at Moscow, Idaho, 3-year average (1959-1961)

Variety	Seed Yield	Percent of Greenar
Oahe	274	186
Nebraska 50	184	125
Idaho 3 (Syn ₂)	161	110
Idaho 4	159	108
Greenar	147	100
Idaho 3 (Syn ₁)	137	93

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Intermediate wheatgrass is poorly adapted for use on irrigated land where there is an adequate water supply and the growing season permits more than one crop since it produces very little regrowth after clipping for hay. However, intermediate wheatgrass was included in two irrigated trials at Twin Falls, Idaho, to determine the relative adaptation of the newer strains. Forage yield data from the two nurseries at Twin Falls are presented in Table 4. Oahe was the outstanding variety in both nurseries.

Table 4. Forage yields in tons of dry matter per acre from the two intermediate wheatgrass nurseries grown under irrigation at Twin Falls, Idaho, 3-year average (1960-1962)

Variety	First Nursery		Second Nursery	
	Forage Yield	Percent of Greenar	Forage Yield	Percent of Greenar
Oahe	2.88	125	3.26	115
Nebraska 50	2.41	104	—	—
Ree	2.36	102	—	—
A-12496	2.36	102	—	—
Greenar	2.31	100	2.83	100
Idaho 4	2.20	96	2.63	93
Amur	2.02	88	—	—
Topar pubescent	1.69	73	—	—
Idaho 3 (Syn ₁)	—	—	2.59	92

Summary

Oahe is superior in seed and forage production to other varieties of intermediate wheatgrass over a wide range of environmental conditions. It has been approved for certification in Idaho and Washington under limited generation increase (no registered class).

Forage Production

Oahe was superior in forage yield to other varieties of intermediate wheatgrass at all test locations in Idaho. Results of a 5-year forage trial at Moscow, Idaho, are presented in Table 2.

Table 2. Forage yield in tons of dry matter per acre from the intermediate wheatgrass nursery at Moscow, Idaho, 5-year average (1959-1963). Annual precipitation is about 22 inches

Variety	Unfertilized Check	50 lb. N Annually	5-year Average	Percent of Greenar
Oahe	2.06	4.02	3.04	122
Ree	2.16	3.84	3.00	120
A-12496	1.82	3.65	2.74	110
Nebraska 50	1.84	3.59	2.72	109
Idaho 4	1.66	3.73	2.70	108
Idaho 3 (Syn ₁)	1.76	3.42	2.59	104
Greenar	1.85	3.13	2.49	100
Amur	1.70	3.21	2.46	99
Idaho 3 (Syn ₂)	1.52	3.33	2.42	97

Personnel at the Soil Conservation Service Plant Materials Center at Aberdeen established an intermediate wheatgrass nursery at Antelope Flats in southeast Idaho. Yield data are presented in Table 3.

Table 3. Forage yields in tons of dry matter per acre from the late-maturing grass nursery at Antelope Flats, Idaho, 3-year average (1961-1963). Annual precipitation is about 14 inches

Variety	Forage Yield	Percent of Greenar
Oahe	1.80	114
Ree	1.67	106
Greenar	1.58	100
Idaho 3 (Syn ₁)	1.50	95

The author gratefully acknowledges the assistance of Dr. J. J. Kolar, Assistant Agronomist, University of Idaho, and R. B. Foster, Manager, Aberdeen Plant Materials Center, Soil Conservation Service, in providing data from the Twin Falls and Antelope Flats grass nurseries.

Appreciation is also extended Professor Al Law and Extension Agronomist Ken Morrison of the Washington State University staff for their review of this manuscript before publication.

PO 4000 10M-12-64

Published and distributed in furtherance of the Acts of May 8 and June 30, 1914, by the University of Idaho Agricultural Extension Service, James E. Kraus, Director; and the U. S. Department of Agriculture, cooperating.