

New Forage Barley For Arizona

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A new forage barley, called Harlan II, has been released by the Arizona Agricultural Experiment Station for commercial production in Arizona.

same period Harlan II produced more hay at the same locations.

of 5% more grain than Harlan at Mesa and Yuma in seven yield tests from 1965 through 1969 (Table 2). In 10 conventional yield tests it has produced as much grain as Arivat. If grain is the only objective (and grain is essential for seed for forage production) it is suggested that Harlan II be planted in November at low rates of seeding (less than 50 pounds per acre) to promote maximum tillering, which results in minimum lodging and larger heads.

Breeding and Testing

Harlan II is a six-row, spring barley

Characteristics

Harlan II is a barley with upright

Table 1

Average yield of oven-dry pasture forage from Harlan and Harlan II barley grown at Mesa and Yuma, Arizona from 1964 through 1969.

Variety	Yield in tons per acre										
	Mesa					Yuma					Average
	1964	1965	1966	1967	1969	1966	1967	1968	1969		
Harlan	1.0	1.8	2.7	3.3	2.8	4.3	3.5	3.8	2.1	2.79	
Harlan II	1.1	1.9	2.8	3.4	2.9	4.3	3.5	3.9	2.5	2.92	
Yield of Harlan II in % of Harlan	110	106	104	103	104	100	100	103	119	105	

that originated as a plant selection from the variety Harlan (CI 7008) made at Mesa, Arizona in 1962. The selection was designated Arizona 6251. Yield tests for forage and grain were conducted at Mesa, Tucson, and Yuma.

heads, light-blue seeds, and rough awns. It stands well when seeded at low rates. It is more uniform in growth, has fewer sterile florets, and is two days earlier in maturity than Harlan.

Adaptation

Harlan II is, primarily, a forage barley adapted to the irrigated areas of Arizona and the Southwest where Harlan has been grown. It has the high tillering capacity of Harlan and it exceeded the forage yield of Harlan by 5% in 9 simulated pasture yield tests at Mesa and Yuma from 1964 through 1969 (Table 1). During the

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Grain Potential

Harlan II has produced an average

Dual Purpose Barley

When planted in October, Harlan II can be grazed until late January and still produce high yields of quality grain. Controlled grazing until late January will shorten plant height and reduce lodging, without jeopardizing grain yields.

Breeder Seed will be maintained by the Arizona Agricultural Experiment Station. Foundation Seed may be obtained through the Arizona Crop Improvement Association, Department of Agronomy and Plant Genetics, University of Arizona, Tucson, Arizona 85721.

Table 2

Average yield of grain from Harlan and Harlan II barley grown at Mesa and Yuma, Arizona from 1965 through 1969.

Variety	Yield in pounds per acre								
	Mesa					Yuma			Average
	1965	1966	1967	1968	1969	1968	1969		
Harlan	4916	4485	4460	4339	5098	3492	4574	4481	
Harlan II	4965	4440	4817	4556	5506	3597	5214	4728	
Yield of Harlan II in % of Harlan	101	99	108	105	108	103	114	105	