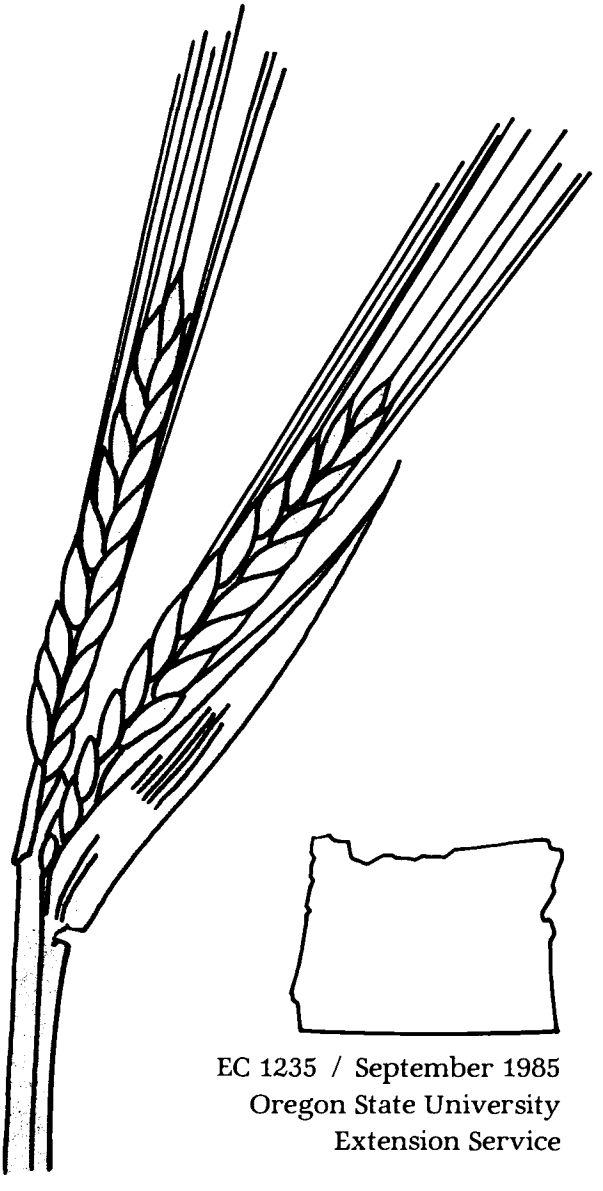
Oregon Cereal Variety Profile

Micah Barley

A Spring Barley for Irrigated Areas



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Micah is a spring feed barley for high production areas of Oregon. It is a late maturing, six-rowed, stiff-strawed, semidwarf with rough awns.

Recommended areas

Micah was specifically selected for use in high production areas. It has a narrower range of adaptation than other high-yielding varieties because of its late anthesis and short grain-filling period. Its short stature and excellent straw strength are particularly well suited to areas where wheel-roll irrigation is used. Micah could replace Steptoe on irrigated acreage in central Oregon, in the Treasure Valley, in the Harney Basin, in the Columbia Basin, and in Union, Baker, and Wallowa counties. Micah will require above-average management to reach its yield potential in these areas.

Micah is adapted to western Oregon, but performance is likely to be erratic when it is grown without irrigation. In years of normal to surplus soil moisture in late spring, yields could exceed those of Steptoe and other high-yielding spring varieties. Micah is not adapted to dryland areas where rainfall is less than 16 inches.

Performance

Lodging resistance. Micah has a better record than Klages, Morex, or Steptoe in 4 years of testing in the Western Regional Spring Barley Nursery.

Kernel plumpness. Micah has good test weight. Kernel plumpness is similar to that of Klages.

Yield. Micah has the potential to outyield Steptoe and other high-yielding varieties when intensively managed. It does not have the broad adaptability of Steptoe. Micah is intolerant of droughty conditions and will show marked yield reductions if grown under moisture stress. Adequate moisture is particularly important at tillering, flowering, and during late grain fill.

Micah and several sister lines were first yield-tested in Oregon in 1978 and have been tested in the Western Regional Yield Trials since 1981. Trial results are summarized in tables 1 and 2.

Disease. Micah is moderately resistant to leaf rust but is susceptible to barley yellow dwarf virus and

Table 1.—Yield date (in bushels per acre) for Micah and other high-yielding spring barleys over several sites

	Site				
Variety	Corvallis 1982-1983	Hermiston[a] 1984	Madras[a] 1984	Ontario[a] 1984	Western region[b] 1981-1983
Andre	—	122	—	135	—
Karla	—	120	—	110	—
Klages	86	—	99	—	71
Kombar	—	129	126	114	—
Kris	—	111	—	85	—
Micah	86	127	130	116	74
Morex	74	—	66	—	68
Steptoe	89	107	112	97	81

[a]Irrigated production site.
[b]An average of 60 dryland and irrigated sites.

Table 2.—Agronomic data for Micah and other high-yielding spring barleys over several sites

Site and variety	Heading date	Plant height (inches)	Lodging %	Test weight (lb)
Madras (1984)				
Klages	7-1	42	55	52
Kombar	7-1	35	0	46
Micah	7-1	33	**0**	48
Morex	6-25	46	65	50
Steptoe	6-25	37	80	47
Hermiston (1984)				
Andre	5-31	32	—	—
Karla	5-31	37	—	—
Kombar	6-5	29	—	—
Kris	6-2	34	—	—
Micah	6-3	32	—	—
Steptoe	5-31	33	—	—
Ontario (1984)				
Andre	6-11	40	—	49
Karla	6-11	41	—	48
Kombar	6-14	39	—	49
Kris	6-14	37	—	49
Micah	6-15	36	—	47
Steptoe	6-10	46	—	50
Western Region (1981-1983)				
Klages	6-28	32	26	51
Morex	6-22	34	28	50
Steptoe	6-21	30	23	48
Micah	6-29	28	**13**	**49**

powdery mildew. Reactions to other diseases are not known.

Development

Micah was selected from early generation material provided to Oregon State University by the Wheat and Maize Improvement Center in Ciudad Obregon, Sonora, Mexico.

Members of the Cereal Breeding Project at Oregon State University selected and evaluated Micah—especially Mathias Kolding, senior instructor (cereals), Columbia Basin Agricultural Research and Extension Center, Hermiston; Mary C. Verhoeven, instructor in crop science; and Warren E. Kronstad, professor of plant breeding and genetics. Paul S. Friedrichsen, Extension agent (crops), Douglas County, assisted in conducting field evaluations.

The Oregon State University Foundation Seed Project will maintain foundation seed stocks of Micah barley.

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is your assurance of varietal purity, high germination, uniform quality, and freedom from noxious weeds. Look for the blue tag or the seed-certification shipping certificate, your guarantee of these qualities.

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This publication was prepared at Oregon State University by Russell S. Karow, Extension agronomist (cereals), and Mathias Kolding, senior instructor (cereals), Columbia Basin Agricultural Research and Extension Center, Hermiston.

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