

## MAZAMA (NDO2686-6R)

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Oregon released MAZAMA in 2000 in cooperation with the North Dakota, California, Idaho, and Washington Agricultural Experiment Stations. Mazama is an early maturing clone with oval, bright red-skinned tubers suitable for table use and the red-skinned creamer market.

Mazama, tested as NDO2686-6R, was selected in 1989 at Klamath Falls, Oregon from a cross between 1196-2R and Redsen (Fig. 1) performed by Dr. Robert Johansen of North Dakota State University, at Fargo in 1987. Early evaluations were done at the Klamath Experiment Station at Klamath Falls, Oregon and Tululake and Bakersfield, California from 1990 to 1993. Seed was multiplied at the Klamath Experiment Station initially, and subsequently at the Central Oregon Agricultural Research Center and by private cooperators. Mazama was widely evaluated in Western Regional red-skinned variety trials in six western states in 1994, 1995, and 1997.

Mazama produces lower total yields than Red LaSoda and Dark Red Norland, but similar marketable yields with a high percentage of small, high-value tubers, and significantly fewer culls (Tables 1 and 4).

Mazama tubers are oval with uniformly bright red skin color that does not fade in storage, and have shallow eyes (Table 2).

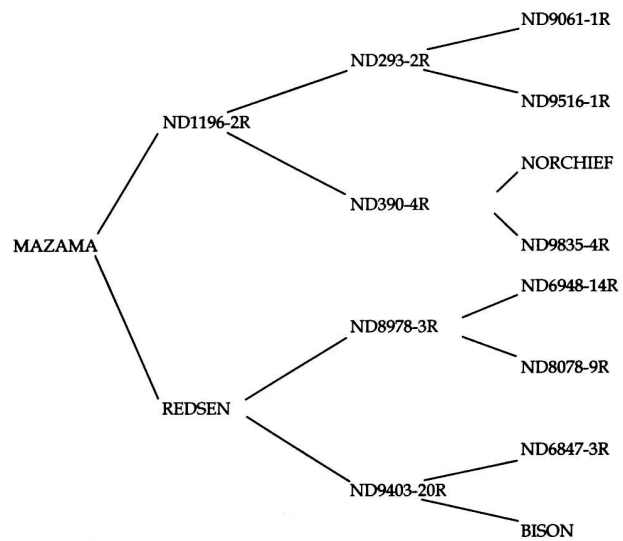
Mazama tubers have higher specific gravity than Dark Red Norland and Red LaSoda (Tables 1 and 4). Internal defects, including hollow heart and brown center, and external growth cracks seldom occur in Mazama. Protein content, percent sucrose, vitamin C, and total glycoalkaloids are similar for Mazama, Red LaSoda, and Dark Red Norland (Table 3). Preliminary culinary evaluations at Klamath Falls failed to detect after-cooking darkening, off-flavor, or sloughing problems in Mazama.

Mazama vines mature slightly earlier than Red LaSoda or Dark Red Norland. Vines are sensitive to metribuzin injury. Mazama is more resistant to potato virus Y than Dark Red Norland and much more resistant than Red LaSoda. Mazama expresses typical PVY foliage symptoms, which are readily observable. Mazama is susceptible to most fungal diseases and to corky ringspot caused by tobacco rattle virus.

Certified seed of Mazama is available in limited quantities from Oregon and California

seed growers. Limited quantities of *invitro* and greenhouse stocks can be arranged by request from the Foundation Potato Seed Program (Phone 541-737-5838) at Oregon State University.

**Figure 1.** Mazama parentage (upper parent is female).



**Table 1.** Yield and quality characteristics of NDO2686-6R, Red LaSoda, and Dk. Red Norland in Western Regional Trials, 1994, 1995, 19971.

Entry	Yield cwt/a						% Marketable <sup>2</sup>	Oz/ Tuber	Spec. Grav.
	Total	<4 oz	US No. 1 4-10 oz	Total Marketable <sup>2</sup>	US No. 1 >10 oz	Culls			
NDO2686-6R	323	67	203	270	42	5	84	4.5	1.073
Red LaSoda	478	34	216	250	184	40	52	6.9	1.070
Dk. Red Norland	408	59	231	290	98	30	71	5.8	1.065

<sup>1</sup> Locations: California, Colorado, Idaho, Oregon, Texas, Washington

<sup>2</sup> Yield < 4 oz. - ≤ 10 oz.

**Table 2.** Physiological defects and Morphological characteristics of NDO2686-6R, Red LaSoda, & Dk. Red Norland in Western Regional Trials, 1994, 1995, 19971.

Entry	% HH & BC <sup>2</sup>	Growth Cracks <sup>3</sup>	Skinning <sup>4</sup>	Vine Vigor <sup>5</sup>	Vine Mat. <sup>6</sup>	Tuber Shape <sup>7</sup>	Skin Color <sup>8</sup>	Eye Depth <sup>9</sup>
NDO2686-6R	0	4.9	4.0	3.1	2.2	1.7	4.1	4.4
Red LaSoda	18	3.8	3.9	3.6	2.5	2.0	2.4	1.5
Dk. Red Norland	3	3.9	4.0	2.9	2.5	2.0	2.9	3.3

<sup>1</sup> Locations: California, Colorado, Idaho, Oregon, Texas, Washington

<sup>2</sup> HH = Hollow Heart; BC = Brown Center

<sup>3</sup> Growth Cracks: 1 = Severe; 5 = None

<sup>4</sup> Skinning: 1 = Severe; 5 = None

<sup>5</sup> Vine Vigor: 1 = Weak; 5 = Strong

<sup>6</sup> Vine Maturity: 1 = Early; 5 = Late

<sup>7</sup> Tuber Shape: 1 = Round; 5 = Long, Narrow

<sup>8</sup> Skin Color: 1 = Pale; 5 = Dk. Red

<sup>9</sup> Eye Depth: 1 = Deep; 5 = Shallow

**Table 3.** Relative tuber composition of NDO2686-6R, Red LaSoda, and Dk. Red Norland at Aberdeen, ID<sup>1</sup>.

Entry	% Oven Dried Solids	% DWB			Mg/100g FWB	
		Dextrose	Sucrose	Protein	Vitamin C	Total Glycoalkaloids
NDO2686-6R	18.96	0.03	0.17	5.77	26.99	3.19
Red LaSoda	17.97	0.07	0.19	6.22	28.47	3.39
Dk. Red Norland	16.49	0.04	0.16	6.53	23.15	3.03

<sup>1</sup> 1997 courtesy Dr. Dennis Corsini, ARS/USDA**Table 4.** Yield and quality characteristics of NDO2686-6R, Red LaSoda, and Dk. Red Norland in Oregon and California Trials 1992 - 1998<sup>1</sup>.

Entry	Location	Years	Yield cwt/a						% Marketable <sup>2</sup>	Spec. Grav.
			Total	<4 oz	US No. 1 4-10 oz	Total Marketable <sup>2</sup>	US No. 1 >10 oz	Culls		
NDO2686-6R	Corvallis	4	469	94	316	410	51	8	87	1.075
	Klamath Falls	6	424	90	286	376	43	5	89	1.073
	Bakersfield	5	311	50	234	284	18	9	91	1.085
	Tulelake	5	443	32	361	393	45	9	89	1.078
	AVG.		412	67	299	366	39	8	89	1.078
Red LaSoda	Corvallis	4	579	35	248	283	225	71	49	1.071
	Klamath Falls	6	587	39	270	309	213	66	53	1.073
	Bakersfield	5	466	12	251	263	147	56	56	1.078
	Tulelake	5	542	7	271	278	209	55	51	1.074
	AVG.		544	23	260	283	199	62	52	1.074
Dk. Red Norland	Corvallis	4	612	57	325	382	132	98	62	1.075
	Klamath Falls	6	425	63	241	304	87	34	72	1.067
	Bakersfield	4	444	20	314	334	71	39	75	1.073
	Tulelake	3	421	17	233	250	97	74	59	1.071
	AVG.		476	39	278	318	97	61	67	1.072

<sup>1</sup> Locations: Corvallis and Klamath Falls (Oregon); Bakersfield and Tulelake (California).<sup>2</sup> Yield < 4 oz. - ≤ 10 oz.