

Onion Hybrid Performance

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The trial was conducted at the NDSU Carrington Research Extension Center on a loam soil with a pH of 8.0 and 3.2% organic matter. Pelleted and raw onion seed were planted on April 27, 2004, in 3-inch paired rows on 18-inch centers at 167,000 seeds/A. The experimental design was a randomized complete block

design with four replicates. Best management practices were used for fertility, weed, disease, and insect control. Hybrids were lifted 0 to 7 days after the half-down date. All hybrids were harvested by October 2. The onions were topped and cured in a forced air drier and graded the last week of October. Split and diseased bulbs were graded as culls regardless of diameter.

The growing season was unusually cool. T-803, Norstar, Mountaineer, Frontier, and T-418 were the only hybrids that reached maturity. Onion hybrids that did not mature were soft and did not cure in the force-air drier. The immature onions probably would develop a high percentage of sprout damage and neck rot in storage.

Table. Onion maturity, yield, and grade. Carrington, ND, 2004

Hybrid	Seed Source	Days to 1/2 down ^a	Yield						# of bulbs	Single Centers
			1-2.25"	2.25-3"	3-4"	4-4.5"	Total	Culls		
			cwt/A						1000s/A	%
T-803	AT	141	12.5	159.3	337.6	0.0	509.3	6.8	91.2	27
Norstar	AT	142	9.7	200.0	347.6	0.0	557.2	3.9	116.8	20
Mountaineer	AT	144	13.9	232.6	320.7	0.0	567.2	13.3	130.1	27
Frontier	AT	146	8.8	230.1	281.8	0.0	520.7	9.8	114.3	13
T-418	AT	147	5.9	125.9	304.2	0.0	436.1	4.3	89.8	8
Bandolero	SS	na	37.5	265.0	474.6	6.4	783.5	19.1	179.7	73
BGS 194	BE	na	10.2	140.4	406.9	0.0	557.5	12.7	109.4	38
Braddock	BE	na	27.7	166.1	252.3	0.0	446.0	32.9	113.4	18
Brahma	SS	na	13.0	86.2	454.1	44.2	597.4	15.4	104.1	37
Condor	AT	na	7.7	56.3	561.5	5.4	630.9	9.1	96.6	30
Copra	BE	na	7.0	78.3	80.8	0.0	190.1	35.1	44.5	20
EX 15122	SE	na	12.9	125.9	529.3	5.0	673.1	15.0	115.7	33
EX 15232	SE	na	21.8	245.0	399.1	5.2	671.1	7.3	140.2	25
Flamenco	SS	na	20.6	225.7	314.9	0.0	561.1	2.7	128.3	23
Gunnison	BE	na	4.1	66.2	651.1	0.0	721.5	9.5	123.4	40
Infinity	SS	na	48.1	177.6	262.3	0.0	487.9	11.2	127.1	17
Milestone	AT	na	3.4	90.5	427.4	24.0	545.4	8.8	90.3	30
Millennium	SS	na	59.9	264.4	372.7	0.0	697.0	2.4	168.2	60
Prince	BE	na	2.9	38.1	108.4	9.5	159.0	12.0	36.8	53
Salem	BE	na	16.3	151.6	375.9	0.0	543.8	10.0	113.4	30
SX 7002	SS	na	23.4	156.1	393.4	5.2	578.1	68.7	122.8	67
SX 7403	SS	na	15.4	221.4	518.2	10.9	765.9	10.0	149.3	58
T-439	AT	na	12.7	174.7	533.8	5.7	726.9	8.8	117.4	13
Tamara	BE	na	8.2	56.0	275.9	0.0	340.1	19.5	74.4	17
Tesoro	SS	na	25.9	209.4	289.7	0.0	519.7	13.8	103.5	28
Teton	SE	na	3.9	83.7	506.4	0.0	594.0	25.2	103.9	48
Tioga	SE	na	28.4	147.5	332.1	4.8	512.7	7.7	108.0	30
Tradewind	SE	na	15.9	163.1	427.7	0.0	606.7	19.7	121.6	18
Vaquero	SS	na	32.9	129.5	169.7	0.0	332.1	20.4	100.7	65
Winston	BE	na	5.4	84.1	293.7	14.5	397.8	25.7	77.4	10
LSD (P=0.05)		4	20.2	89.3	136.5	15.4	120.9	30.5	25.7	29

^aHybrids with a days to 1/2 down noted as NA had not achieved maturity on at least three replicates prior to harvest.