



**SOUTH DAKOTA
STATE UNIVERSITY**
College of Agriculture, Food
and Environmental Sciences

South Dakota State University Extension
South Dakota Agricultural Experiment Station at SDSU

2023 South Dakota Sunflower Hybrid Trial Results Onida

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Location:	1 1/2 miles east and a 1/2 mile south of Onida, SD 44.6928169°, -99.995388°
Cooperator:	Yackley Ranches
Soil Type:	Highmore-Walke silt loams, 0-2% slopes
Fertilizer:	115-0-0-10S-0.1B 30" row liquid banded
Previous crop:	corn
Tillage:	no-till
Row spacing:	30 inches
Seeding Rate:	24,000/acre
Herbicide:	Burndown (fall): 3 oz/acre flumioxidim + 22 oz/acre RT3 Burndown (spring): 32 oz/acre Parazone + 4 oz/acre Authority Supreme Pre: 4 oz/acre Authority Supreme Post: 0.5 oz/acre Express + 6 oz/acre Section Three
Fungicide:	1) 6 oz/acre Headline @ R1 2) 4 oz/acre Priaxor @ R5
Insecticide:	1) 9 oz/acre Asana + 3.8 oz/acre Lambda_CY + 8 oz/acre Exponent @ R5 2) 9 oz/acre Asana XL + 16 oz/acre malathion @ R5+4d
Date seeded:	6/1/2023
Date harvested:	11/8/2023
Notes:	Trial suffered damage from high winds and heavy rainfall events.

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Table 1a. Sunflower oilseed hybrid performance results (average of 4 replications) at Onida, SD.

Hybrid Information			Agronomic Performance				
Brand	Hybrid	Type*	Yield (lbs/ ac) (@10%)	Moisture (%)	Test Weight (lbs/bu)	Oil % (@10%)	Harvest Population (plants/ac)
Pioneer	P64HE101	HO, EX, DM	2415	10.7	27.1	35.8	23800
Croplan	CP450E	SU, HO, DM	2219	10.3	26.6	36.1	22900
Sunrich Products	4425 CL	CL	2146	10.3	26.3	33.7	18700
Advanta Seeds	ADV XH136	-	2065	10.3	27.1	38.8	21500
Nuseed	N4H422 CL	HO, CL, DM	1980	10.7	27.3	36.6	20100
Nuseed	N4H521 CL	HO, CL, DM	1969	10.6	25.7	38.0	19000
Croplan	CP5045CL	IMI, NS, DM	1939	10.8	28.1	40.1	20100
Pioneer	P63HE920	HO, EX, DM	1936	11.0	27.2	34.7	20400
Nuseed	N4H490 E	HO, EX, DM	1920	10.7	28.1	39.5	15900
Nuseed	HORNET	HO, CL, DM	1908	10.5	27.2	37.7	17300
Proseed	50068 CL	HO, CL, DM	1877	10.8	26.1	36.1	18400
Croplan	CP455E	SU, HO, DM	1839	10.2	26.4	36.8	18100
Advanta Seeds	ADV XH182IT	CL	1838	10.3	25.9	36.9	17300
Dyna-Gro Seed	H49HO19CL	HO, CL	1781	10.4	27.3	40.0	19000
Nuseed	FALCON	NS, EX	1775	10.3	27.6	36.6	17300
Croplan	CP7919CL	IMI, HO, DM	1762	11.1	25.1	38.1	14400
Nuseed	N5H493 CL	HO, CL, DM	1658	10.3	24.4	27.5	21200
Advanta Seeds	ADV XH302IT	CL	1631	12.3	25.4	32.3	13600
Dyna-Gro Seed	H45NS16CL	NS, CL	1617	10.2	27.8	38.8	15600
Dyna-Gro Seed	H47HO11EX	HO, SU	1606	10.8	26.4	33.5	21200
RAGT Semences	AC2201	HO, CL, DM	1596	10.5	27.3	36.8	21800
Proseed	EXP 109L-E	HO, CL, DM	1531	10.4	26.0	39.3	19300
Croplan	CP4157E	SU	1511	10.2	26.1	36.9	13900
Croplan	CP5249CL	IMI	1508	9.9	24.7	40.1	13000
Proseed	50502 CL	HO, CL, DM	1508	9.8	25.4	40.2	16700
RAGT Semences	AC2101	HO, CP, DM	1491	9.9	24.6	35.1	17000
Dyna-Gro Seed	H50HO20CP	HO, CP	1491	10.5	27.7	41.1	14400
Sunrich Products	4415 HO/DM/CLP	HO, DM, CP	1458	10.1	26.0	34.8	17000
Trial Average			1558	10.4	26.3	36.3	16800
LSD (0.05)†			307	0.5	1.0	2.8	3800
C.V.‡			14.1	-	-	-	-

*Type: NuSun = NS; Traditional = Trad; High Oleic = HO; Clearfield (IMI) = CL; Clearfield Plus (IMI) = CP; Conoil = CO; ExpressSun (SU) = EX; Downy Mildew Resistant = DM; Rust Resistant = Rust.

† Yield or moisture value required (\geq LSD) to determine if varieties are significantly different from one another.

‡ C.V. is a measure of variability or experimental error, 15% or less is acceptable.



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Table 1b. Sunflower oilseed hybrid performance results, continued (average of 4 replications) at Onida, SD.

Hybrid Information			Agronomic Performance				
Brand	Hybrid	Type*	Yield (lbs/ ac) (@10%)	Moisture (%)	Test Weight (lbs/bu)	Oil % (@10%)	Harvest Population (plants/ac)
Proseed	E-91 E	HO, SU, DM	1437	10.5	26.8	35.8	15900
Croplan	CP432E	SU, NS, DM	1419	10.2	26.7	31.7	19800
Nuseed	N4H470 CLP	HO, CL, DM	1400	11.2	27.3	41.0	13900
RAGT Semences	AC2202	HO, CL, DM	1398	10.4	27.5	38.3	21000
Dyna-Gro Seed	H45HO10EX	HO, SU	1364	10.0	24.5	37.4	15300
Thunder Seed	TEX2301SF	HO, EX	1338	10.6	26.1	39.3	16100
Proseed	E-94 CP	HO, CLP, DM	1270	10.4	25.8	35.2	17600
Nuseed	BADGER DMR	NS, CL, DM	1244	10.2	25.3	29.4	14700
USDA Check	HYBRID 894	TRAD	1220	10.1	26.5	36.0	14400
Thunder Seed	TEX2304SF	HO, EX	1206	10.6	25.5	32.9	16400
Thunder Seed	TEX2302SF	HO, EX	1128	10.2	24.6	32.0	12200
Trial Average			1558	10.4	26.3	36.3	16800
LSD (0.05)†			307	0.5	1.0	2.8	3800
C.V.‡			14.1	-	-	-	-

*Type: NuSun = NS; Traditional =Trad; High Oleic = HO; Clearfield (IMI) = CL; Clearfield Plus (IMI) = CP; Conoil = CO; ExpressSun (SU) = EX; Downy Mildew Resistant = DM; Rust Resistant = Rust.

† Yield or moisture value required (\geq LSD) to determine if varieties are significantly different from one another.

‡ C.V. is a measure of variability or experimental error, 15% or less is acceptable.