



CLIMATE READY ALFALFA

NuMex 501 makes the Mountain View Seeds' A-TEAM! NuMex 501 is a high forage yielding and high forage quality alfalfa variety selected for a new genetic trait called Drought-Resilience. This trait allows NuMex 501 to recover from prolonged periods of drought stress while maintaining high yields when adequate irrigation is available. NuMex 501 was bred by New Mexico State University using advanced conventional (Non-GMO) plant breeding technology, that identified alfalfa genes influencing Drought Tolerance and Drought-Resilience. This technology combined with selection of vigorous plants from multiple deficit-irrigated fields over seven years, was used in the plant breeding process to develop a new class of alfalfa varieties with Drought-Resilience.



DROUGHT RESILIENT ALFALFA

NEW TRAITS COMBAT WATER STRESS CONDITIONS DUE TO CLIMATE CHANGE

*Ability to Recover from Drought Stress
Selected for 7-Years for Drought-Resilience
Salinity Tolerance**

EXCELLENT FORAGE QUALITY

VERY GOOD FORAGE YIELD
Under Normal Irrigation with 7-Years of Selection for Drought-Resilience

AGRONOMIC CHARACTERISTICS

Fusarium Wilt	R	Recovery After Cutting	Good
Anthracnose	HR	Forage Yield Potential	Very Good
Aphanomyces Root Rot	MR	Forage Quality	Excellent
Phytophthora Root Rot	HR	Drought-Resilience	7-Yrs of Selection
Pea Aphid	R	Root Type	Tap
Spotted Alfalfa Aphid	MR	Leaf Type	Trifoliolate
Stem Nematode	MR	Salt Tolerance (germ.)	Tolerant*
Fall Dormancy	8		

*Projected level of resistance or tolerance
High Resistance (HR), Resistant (R), Moderate Resistance (MR)

BREEDING FOR DROUGHT-RESILIENCE



DROUGHT RESILIENT ALFALFA



DRY MATTER YIELDS (Tons/Acre)

Variety	2021 Total	2022 Total	2023 Harvests				2023 Total	3-Year Average
			13-Jun	18-Jul	21-Aug	12-Oct		
NuMEX 501	7.39	12.50	2.88	2.13	1.68	1.28	7.95	9.28
Magnum 8	6.78	12.78	2.70	2.28	1.88	1.23	8.08	9.21
SW4412Y	6.85	12.28	2.78	2.35	1.90	1.18	8.20	9.11
AFX 469	6.06	12.65	2.88	2.45	1.93	1.25	8.50	9.07
Bar MSI	6.92	11.83	3.05	2.18	1.90	1.20	8.33	9.02
NM Common	6.29	11.78	3.18	2.38	1.83	1.48	8.85	8.97
African Common	6.68	11.13	2.88	1.85	1.48	1.03	7.23	8.34
Dona Ana	6.12	10.30	3.08	1.80	1.48	1.15	7.50	7.97
Zia	5.62	9.28	2.95	1.35	1.25	0.83	6.38	7.09
Trial Average	6.49	12.01	2.90	2.17	1.74	1.20	8.00	8.83

Sprinkler-irrigated alfalfa trial planted 08/20/2020 at NMSU's Agricultural Science Center at Farmington. 2021 Harvest dates: 19-Jun, 10-Aug, 22-Sep. 2022 Harvest dates: 9-Jun, 21-Jul, 30-Aug, 12-Oct.
Standard Irrigation Management.

SEEDING

Alfalfa is a very "foundational" crop; start with adequate fertility levels; pH 6.5-7.5; P ≥ 50 lbs/ac; K ≥ 220-250 lbs/ac. Plant into well-drained soil type, firm seedbed, seeding depth ¼" to ½". Planting rate, regardless of nurse or companion crop is 17-22 lbs/ac; if broadcast or no-till seeded, consider increasing seeding rate 10-20%. Keep nurse crop < 1 bu.; companion crop < 2 lbs. Imperative to plant into moist soils where irrigation not available, not in dry soil soils anticipating rainfall. GOAL: optimal stand density 5 weeks after planting, 25-35 plants per sq. ft.



CLIMATE READY ALFALFA

NuMex 801 makes the Mountain View Seeds' A-TEAM! NuMex 801 is a high forage yielding alfalfa variety selected for a new genetic trait called Drought-Resilience. This trait allows NuMex 801 to recover from prolonged periods of drought stress while maintaining high yields when adequate irrigation is available. NuMex 801 was bred by New Mexico State University using advanced conventional (Non-GMO) plant breeding technology, that identified alfalfa genes influencing Drought Tolerance and Drought-Resilience. This technology combined with selection of vigorous plants from multiple deficit-irrigated fields over seven years, was used in the plant breeding process to develop a new class of alfalfa varieties with Drought-Resilience.



DROUGHT RESILIENT ALFALFA

NEW TRAITS COMBAT WATER STRESS CONDITIONS DUE TO CLIMATE CHANGE

Ability to Recover from Drought Stress

Selected for 7-years for Drought-Resilience

*Salinity Tolerance**

EXCELLENT FORAGE YIELD

*Under Normal Irrigation Combined with Excellent** Drought-Resilience Following Water Stress Conditions*

FORAGE YIELD 20% GREATER THAN CUF 101 IN 3-YR CA YIELD TRIAL

AGRONOMIC CHARACTERISTICS

Fusarium Wilt	LR	Fall Dormancy	8
Anthrachnose	HR	Recovery After Cutting	Good
Phytophthora Root Rot	R	Forage Yield Potential	Excellent
Pea Aphid	MR	Drought-Resilience	Excellent**
Spotted Alfalfa Aphid	R	Root Type	Tap
Blue Alfalfa Aphid	MR	Leaf Type	Trifoliolate
Stem Nematode	LR	Salt Tolerance (germ.)	Tolerant*

*Projected level of resistance or tolerance

**Compared to Drought Resilient Check

High Resistance (HR), Resistant (R), Moderate Resistance (MR), Low Resistance (LR)

BREEDING FOR DROUGHT-RESILIENCE



DROUGHT RESILIENT ALFALFA



2022-2024 FORAGE YIELDS (Dry Tons/Acre)

Variety	Fall Dormancy	2022 Yield	2023 Yield	2024 Yield*	Average
NuMEX 801**	8	11.49	8.45	6.86	8.93
Alphatec 921	9	11.63	8.24	6.81	8.89
AmeriStand 835NT RR	8	11.81	7.45	6.49	8.59
Magna 995	9	10.91	7.94	6.63	8.49
Highline	9	10.71	7.18	6.77	8.22
SW 9812	9	10.73	7.02	6.00	7.92
CUF 101	9	10.31	6.34	5.62	7.42
6601N	6	9.95	6.64	5.66	7.42
HybiForce-4420/Wet	4	8.81	7.11	5.09	7.00
Ameristand 518NT	5	9.06	5.58	4.33	6.32
Trial Average		10.73	7.26	6.12	8.04

Trial planted 10/19/2021; seeded at 25 lb/acre viable seed at San Joaquin Valley Agricultural Sciences Center, Parlier, CA; standard irrigation management; FD = Fall Dormancy reported by seed companies.

*Six cuts only

**Experimental designation for NuMex 801 is NM1703PAR

SEEDING

Alfalfa is a very "foundational" crop; start with adequate fertility levels; pH 6.5-7.5; P ≥ 50 lbs/ac; K ≥ 220-250 lbs/ac. Plant into well-drained soil type, firm seedbed, seeding depth ¼" to ½". Planting rate, regardless of nurse or companion crop is 17-22 lbs/ac; if broadcast or no-till seeded, consider increasing seeding rate 10-20%. Keep nurse crop < 1 bu.; companion crop < 2 lbs. Imperative to plant into moist soils where irrigation not available, not in dry soil soils anticipating rainfall. GOAL: optimal stand density 5 weeks after planting, 25-35 plants per sq. ft.



CLIMATE READY ALFALFA

NuMex 802 makes the Mountain View Seeds' A-TEAM! NuMex 802 is a high forage yielding alfalfa variety selected for a new genetic trait called Drought-Resilience. This trait allows NuMex 802 to recover from prolonged periods of drought stress while maintaining high yields when adequate irrigation is available. NuMex 802 was bred by New Mexico State University using advanced conventional (Non-GMO) plant breeding technology, that identified alfalfa genes influencing Drought Tolerance and Drought-Resilience. This technology combined with selection of vigorous plants from multiple deficit-irrigated fields over seven years, was used in the plant breeding process to develop a new class of alfalfa varieties with Drought-Resilience.



DROUGHT RESILIENT ALFALFA

NEW TRAITS COMBAT WATER STRESS CONDITIONS DUE TO CLIMATE CHANGE

Ability to Recover from Drought Stress

Selected for 7-years for Drought-Resilience

*Salinity Tolerance**

EXCELLENT FORAGE YIELD

*Under Normal Irrigation Combined with Good** Drought-Resilience Following Water Stress Conditions*

TOP YIELDER IN NM & CA

FORAGE YIELD 26% GREATER THAN CUF 101 IN 3-YR CA YIELD TRIAL

AGRONOMIC CHARACTERISTICS

Fusarium Wilt	MR	Recovery After Cutting	Good
Anthracnose	R	Forage Yield Potential	Excellent
Phytophthora Root Rot	MR	Drought-Resilience	Good**
Pea Aphid	MR	Root Type	Tap
Spotted Alfalfa Aphid	R	Leaf Type	Trifoliolate
Blue Alfalfa Aphid	MR	Salt Tolerance (germ.)	Tolerant*
Fall Dormancy	8		

*Projected level of resistance or tolerance
**Compared to Drought Resilient Check

High Resistance (HR), Resistant (R), Moderate Resistance (MR), Low Resistance (LR)

BREEDING FOR DROUGHT-RESILIENCE



DROUGHT RESILIENT ALFALFA



2022-2024 FORAGE YIELDS (Dry Tons/Acre)

Variety	Fall Dormancy	2022 Yield	2023 Yield	2024 Yield*	Average
NuMEX 802**	8	12.25	8.62	7.30	9.39
Alphatec 921	9	11.63	8.24	6.81	8.89
AmeriStand 835NT RR	8	11.81	7.45	6.49	8.59
Magna 995	9	10.91	7.94	6.63	8.49
Highline	9	10.71	7.18	6.77	8.22
SW 9812	9	10.73	7.02	6.00	7.92
CUF 101	9	10.31	6.34	5.62	7.42
6601N	6	9.95	6.64	5.66	7.42
HybiForce-4420/Wet	4	8.81	7.11	5.09	7.00
Ameristand 518NT	5	9.06	5.58	4.33	6.32
Trial Average		10.73	7.26	6.12	8.04

Trial planted 10/19/2021; seeded at 25 lb/acre viable seed at San Joaquin Valley Agricultural Sciences Center, Parlier, CA; standard irrigation management; FD = Fall Dormancy reported by seed companies.

*Six cuts only

**Experimental designation for NuMex 802 is NM1705PAR

SEEDING

Alfalfa is a very "foundational" crop; start with adequate fertility levels; pH 6.5-7.5; P ≥ 50 lbs/ac; K ≥ 220-250 lbs/ac. Plant into well-drained soil type, firm seedbed, seeding depth ¼" to ½". Planting rate, regardless of nurse or companion crop is 17-22 lbs/ac; if broadcast or no-till seeded, consider increasing seeding rate 10-20%. Keep nurse crop < 1 bu.; companion crop < 2 lbs. Imperative to plant into moist soils where irrigation not available, not in dry soil soils anticipating rainfall. GOAL: optimal stand density 5 weeks after planting, 25-35 plants per sq. ft.