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ALFALFA

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ALFALFA VARIETIES in Nebraska

By W. J. Moline, Extension Agronomist (Forage Crops)

This report provides information about alfalfa varieties. It answers questions from farmers, ranchers, county agricultural agents and seedsmen concerning the origin and relative performance of alfalfa varieties in Nebraska.^{1/}

This report is based on data provided by plant breeders and information from variety test programs. Outstate Testing Circular 136 is a summary of 17 years of research work and should be consulted for further production information.

Before choosing a variety, additional information on seed availability, seed cost and other points should be considered. Choice of variety should be based on the soil and climate of your farm or ranch and the length of your crop rotation. Use high quality seed from a local reputable seed dealer.

TERMS, DEFINITIONS

Some terms and definitions used in describing alfalfa varieties are:

Variety: A population of plants that can be differentiated from other populations of plants of the same species by combined performance in yield, disease and insect resistance, growth habit or other characteristics.

Public Variety: A variety developed by a public institution (primarily experiment stations).

Private Variety: A variety developed by a seed company. Seed may or may not be certified.

Blend: A blend of several varieties or types, generally sold by seed companies. Some blends remain constant. The components of others shift from year to year. It is therefore hard to predict performance.

Brand: The term is somewhat confusing. Often the brand name is applied to alfalfa seed a particular company is selling. While many brands remain the same from year to year (some brands are legitimate varieties), others are quite variable. Some companies shift components that make up their brand from year to year.

^{1/} The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no indorsement by the Cooperative Extension Service is implied.

Seed Origin: Origin means only that the seed came from the designated state, such as Kansas common, Oklahoma approved, Washington, etc. It may give a wide range of performance from year to year and from lot to lot. This term is of value only in the case of common alfalfa.

Verified Origin: The same as seed origin. The V. O. (verified origin) tag verifies that a series of grower affidavits, processing and handling records support the claim that the seed originated in a certain state. It gives no guarantee of performance, varietal identity or any other quality factor.

Synthetic: Many new alfalfa varieties are termed synthetics. They are made as follows: First, plant breeders select outstanding parental plants. They cross them and test the progeny looking for promising combinations. Then they plant them, usually in combinations of 4-10 plants, and put bees in to crossbreed them. They field-plant the resulting seed and, after further testing, may increase it for release as a variety. The word synthetic has no derogatory meaning. It merely refers to the fact that these varieties are man-made or synthesized.

Hybrid: An alfalfa hybrid consists of first-generation progeny (offspring) resulting from controlled cross-fertilization between two selected parents.

ALFALFA VARIETIES

1. **Alfa**—Developed in Sweden. Flemish type susceptible to bacterial wilt. Somewhat winter hardy. Sold by W. R. Grace and Co., Rudy Patrick Seed Division, merchandised through Farmers Regional Co-op.

2. **Apex**—Developed by W. R. Grace Co., Rudy Patrick Seed Division. Flemish type resistant to bacterial wilt.

3. **Atlantic**—Developed by New Jersey Agricultural Experiment Station. Not resistant to bacterial wilt.

4. **ATRA 55**—Developed by Arnold Thomas Seed Co., sold through Pioneer Seed Co. Winter hardy. Wilt resistant. Included in 1969 testing program.

5. **Buffalo**—Developed by Kansas Agricultural Experiment Station and U.S. Dept. of Agriculture. Bacterial wilt resistant selection out of Kansas common.

6. **Cardinal**—Developed in France by Tourneur Seed Co. Similar to DuPuits. Wilt susceptible. Sold by Northrup King and Co.

7. **Cayuga**—Developed at Cornell University. Wilt resistant. Intermediate between Ranger and DuPuits in growth habit.

8. **Cody**—Released by Kansas Agricultural Experiment Station and U.S. Dept. of Agriculture. Resistant to spotted alfalfa aphid. Selected out of Buffalo. Resistant to bacterial wilt. Moderately winter hardy.

9. **Dawson**—Developed by University of Nebraska and U.S. Dept. of Agriculture. Resistant to spotted alfalfa aphid and pea aphid. Wilt resistant. Winter hardy.

10. **DeKalb 123**—Wilt resistant. Winter hardy. Intermediate to Ranger and Vernal.

11. **DeKalb 153**—Winter hardy. Wilt resistant. Intermediate to Buffalo and Ranger.
12. **DF 44**—Submitted by Sexauer Seed Co., Norfolk, Nebraska. Appears less winter hardy than Ranger.
13. **Dominor**—Developed and merchandised by Northrup King and Co. Winter hardy. Wilt resistant.
14. **DuPuits**—Developed in France, merchandised by Northrup King and Co. Recovers quickly after cutting. Susceptible to crown rot and bacterial wilt.
15. **Embro A-24**—Flemish type developed by Farm Seed Research Corp. specifically for Mangelsdorf Seed Co. Less winter hardy than Ranger.
16. **Embro A-35**—Flemish type developed by Farm Seed Research Corp. specifically for Mangelsdorf Seed Co. Similar to Ranger in winter hardiness.
17. **Embro A-59**—Flemish type developed by Farm Seed Research Corp. specifically for Mangelsdorf Seed Co. Similar to Ranger in winter hardiness.
18. **Europa**—Private variety, property of H. W. Wolcott & Co. Sold through Pfister Seed Co. Developed in France. Flemish type. Wilt susceptible.
19. **FD 100**—Owned by H. W. Wolcott and Co., sold through Pfister. French type. Wilt susceptible. FD stands for Florimond Desprez.
20. **520**—Developed by Arnold Thomas Seed Co., sold through Pioneer Seed Co. Winter hardy. Wilt resistant. Included in 1969 testing program.
21. **522**—Developed by Arnold Thomas Seed Co., sold through Pioneer Seed Co. Winter hardy. Wilt resistant.
22. **525**—Developed by Arnold Thomas Seed Co., sold through Pioneer Seed Co. Winter hardy. Wilt resistant.
23. **Fremont**—Developed by University of Wyoming. Winter hardy. Wilt resistant.
24. **Glacier**—Developed in France, sold by Northrup King and Co. Similar to DuPuits. Wilt susceptible.
25. **Haymor**—Sold by Northrup King. Wilt resistant. Modified DuPuits type.
26. **Iroquois**—Developed by Cornell University. Winter hardy. Wilt resistant.
27. **Kanza**—Developed by Kansas State University and U.S. Dept. of Agriculture. Resistant to pea aphid, spotted alfalfa aphid and wilt. Winter hardiness similar to Buffalo and Cody.
28. **KN 33**—Originated and distributed by Sexauer Co. Appears similar to Ranger in winter hardiness.
29. **Ladak**—Introduced from India. Recovers slowly after cutting. Goes into dormancy early in fall. Low level of resistance to bacterial wilt.
30. **Lahontan**—Developed by University of Nevada and U.S. Dept. of Agriculture. Resistant to stem nematode, wilt and spotted alfalfa aphid. Less winter hardy than Ranger.
31. **Mark II**—Selected from Narragansett by Cornell University. Wilt susceptible.

32. **Narragansett**—Developed by Rhode Island Agricultural Experiment Station. Very susceptible to bacterial wilt.

33. **Nomad**—Property of Burlingham and Sons Seed Co. in Oregon. Wilt susceptible.

34. **Norseman**—Distributed by Barzen of Minneapolis, Inc. Winter hardy. Wilt resistant.

35. **Orchies**—Merchandised by Calapproved Seed Growers Assn. Wilt susceptible. Originated in France.

36. **PAT 30**—Developed by Arnold Thomas Seed Co., sold through Pioneer Seed Co. Appears to be French type.

37. **Progress**—Developed by Caladino Farm Seeds Inc. Selection out of Vernal. Wilt resistant.

38. **Promor**—Developed, merchandised by Northrup King. Winter hardy. Wilt resistant.

39. **Rambler**—Developed by Canadian Dept. of Agriculture. Winter hardy. Creeping-rooted type.

40. **Ranger**—Developed by Nebraska Agricultural Experiment Station and U.S. Dept. of Agriculture. Resistant to bacterial wilt. Somewhat susceptible to leaf spot diseases.

41. **Rhizoma**—Developed by University of British Columbia, Canada. Susceptible to bacterial wilt. Winter hardy. Spreads by rhizomes under certain conditions.

42. **Saranac**—Developed by Cornell University. Wilt resistant. Flemish type similar to DuPuits.

43. **Scout**—Developed by Farmers Forage Research Cooperative. Wilt resistant. Winter hardy. Merchandised by NC+.

44. **Stride**—Developed by Caladino Farm Seeds Inc. Flemish type. Wilt susceptible.

45. **Team**—Developed by U.S. Dept. of Agriculture, Maryland and North Carolina Experiment Stations. Moderate resistance to alfalfa weevil. Susceptible to bacterial wilt.

46. **Tempo**—Developed by Farmers Forage Research Cooperative. Winter hardy. Wilt resistant.

47. **Teton**—Developed by South Dakota Agricultural Experiment Station. Moderate resistance to bacterial wilt, common leafspot and fusarium. Very winter hardy.

48. **Titan**—Developed, merchandised by W. R. Grace and Co., Rudy Patrick Seed Division. Winter hardy. Wilt resistant.

49. **Travois**—Developed by South Dakota Agricultural Experiment Station. Very winter hardy. Resistant to bacterial wilt. Root-proliferating type.

50. **Vernal**—Developed by Wisconsin Agricultural Experiment Station and U.S. Dept. of Agriculture. Winter hardy. Resistant to bacterial wilt. Tolerant of leafspot and yellow leaf blotch.

51. **Warrior**—Developed and merchandised by Northrup King. Wilt resistant. Modified DuPuits type.

52. **Weevilchek**—Developed by Farmers Forage Research Cooperative. Moderate resistance to alfalfa weevil. Winter hardy. Wilt resistant.

53. **WL 200**—Developed by Waterman-Loomis Co. Wilt resistant. Similar to Ranger in winter hardiness.

54. **WL 210**—Developed by Waterman-Loomis Co., merchandised by J. C. Robinson Seed Co. Winter hardy. Wilt resistant.

55. **WL 300**—Developed by Waterman-Loomis Co. Wilt resistant. Similar to Ranger in winter hardiness.

56. **WL 303**—Developed by Waterman-Loomis Co., merchandised by J. C. Robinson Seed Co. Tolerant to wilt. Similar to Ranger in winter hardiness.

57. **WL 304**—Developed by Waterman-Loomis Co. Tolerant-to-susceptible regarding wilt. Similar to Ranger in winter hardiness.

58. **WL 305**—Developed by Waterman-Loomis Co., merchandised by J. C. Robinson Seed Co. Winter hardy. Wilt resistant.

59. **WL 400**—Developed by Waterman-Loomis Co. Susceptible to wilt. Less winter hardy than Ranger.

The relative performance of alfalfa varieties in comparison with Ranger.^{a/}

Entry	Relative forage yield ^{b/}	Winter hardiness ^{b/}	Wilt re-action ^{c/}	Fall growth habit ^{d/}	Recovery after cutting ^{e/}
Alfa	-	-	S	2	1
Apex	=	-	R	2	1
Atlantic	=	=	S	4	3
Atra 55	=	=	R	3	2
Buffalo	=	-	R	2	2
Cardinal	=	-	S	1	2
Cayuga	=	=	R	4	3
Cody	=	-	R	2	2
Dawson	=	=	R	5	4
DeKalb 123	=	=	R	5	4
DeKalb 153	=	=	R	4	3
DF 44	=	-	U	1	1
Dominor	=	=	R	3	2
DuPuits	-	-	S	1	1

The relative performance of alfalfa varieties in
comparison with Ranger.^{a/} (continued)

Entry	Relative forage yield ^{b/}	Winter hardi- ness ^{b/}	Wilt re- action ^{c/}	Fall growth habit ^{d/}	Recovery after cutting ^{e/}
Embryo A-24	=	-	S	1	1
Embryo A-35	=	=	U	3	2
Embryo A-59	=	=	U	2	2
Europa	=	-	S	1	1
FD 100	=	-	S	1	2
520	=	=	R	5	3
522	=	=	R	3	3
525	=	=	R	4	4
Fremont	=	=	R	4	3
Glacier	=	-	S	3	2
Haymor	=	=	R	2	3
Iroquois	=	=	R	4	3
Kanza	=	-	R	3	2
KN 33	=	=	U	2	2
Ladak	-	+	T	7	6
Lahontan	-	-	R	1	1
Mark II	=	=	S	4	4
Narragansett	=	=	S	5	4
Nomad	-	-	S	7	6
Norseman	=	=	R	8	6
Orchies	=	-	S	2	3
PAT 30	=	-	S	1	1
Progress	=	=	R	2	2
Promor	=	-	R	1	1
Rambler	-	+	T	9	7
Ranger	Check	Check	R	4	3
Rhizoma	-	+	S	6	5

The relative performance of alfalfa varieties in
comparison with Ranger.^{a/} (continued)

Entry	Relative forage yield ^{b/}	Winter hardi- ness ^{b/}	Wilt re- action ^{c/}	Fall growth habit ^{d/}	Recovery after cutting ^{e/}
Saranac	=	=	R	3	2
Scout	=	=	R	2	2
Stride	-	-	S	1	2
Team	=	=	S	4	3
Tempo	=	=	R	3	2
Teton	-	+	R	9	9
Titan	=	=	R	5	4
Travois	-	+	R	9	8
Vernal	=	+	R	5	4
Warrior	=	-	R	2	2
Weevlcchek	=	=	R	5	4
WL 200	=	=	R	3	3
WL 210	=	=	R	4	2
WL 300	=	=	R	4	2
WL 303	=	=	T	2	2
WL 304	=	=	T-S	3	2
WL 305	=	=	R	3	3
WL 400	=	-	S	1	1

^{a/}Adapted from Dreier, A. F. et al. Outstate Testing Circular 136, 1969.

^{b/}- less, = equal, + more than Ranger

^{c/}S = susceptible, R = resistant, T = tolerant, U = unknown

^{d/}Visual basis 1 = erect, 9 = prostrate

^{e/}Visual basis 1 = fastest, 9 = slowest