(Limited Irrigation) Perennial Pasture Test

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Dink Conner - Willcox   Elevation: 4200 feet

This replicated test was established in August, 1974. Irrigation has been with sprinklers. Observations concerning entries in this test are summarized in the table and in the paragraphs below.

Entry	August 14, 1975 Stand (%)	August 14, 1975 Yield	August 24, 1976 Stand (%)	August 24, 1976 Yield
Alfalfa				
Ranger	78	40	53	28
Nomad	65	45	58	30
Ladak	50	30	48	45
Mesilla	48	15	47	32
Lahontan	62	50	50	32
Sweet Clover				
Yellow	15	10	20	7.5
Madrid	8	10	15	25
Birdsfoot Trefoil (Narrowleaf)				
Commercial	33	15	52	28
Birdsfoot Trefoil (Broadleaf)				
Cascade	25	15	23	17
Commercial	27	25	37	22
Sainfoin				
Remont	45	30	50	25
Eskie	55	25	35	22
Burnet	62	35	60	37
Cicer Milkvetch				
Lutana	42	30	45	22
Streambank Wheatgrass				
Sodar	58	30	68	32
Intermediate Wheatgrass				
Amur	53	30	63	38
Oahe	73	40	78	33
Pubescent Wheatgrass				
Luna	50	30	47	27
Topar	50	30	53	35
Tall Wheatgrass				
Jose	77	50	73	42
Alfar	78	40	72	42
Tall Fescuegrass				
Alta	82	45	80	42
Fawn	73	40	73	43
D14941	75	40	60	43
Goar	48	30	58	38
Kenhy	55	35	55	32
Hard Fescuegrass				
Durar	35	20	47	23
Orchardgrass				
Latar	50	35	55	47
Potomac	55	25	55	30
Smooth Bromegrass				
Lincoln	43	30	53	32
Meadow Bromegrass				
Regar	40	35	47	25
Lovegrass				
Atherstone	48	25	65	38
Boer	17	10	27	18
Willmans	20	15	32	23
Bermudagrass				
NK 37	17	10	40	23

Entry	August 14, 1975 Stand (%)	Yield	August 24, 1976 Stand (%)	Yield
Other Grasses				
Blue Panicgrass	13	10	23	17
Side Oats Gramma	17	10	50	25
Garrison Creeping Foxtail	52	45	50	28
Alkali Sacaton	35	25	87	50
Kleingrass	28	25	75	43
Hardinggrass	20	15	43	20
Reeds Canarygrass	40	25	37	27
Sawki Russian Wildrye	73	35	68	32
Mixtures				
1. Alta Tall Fescuegrass and Alkar Tall Wheatgrass	67	35	50	27
2. Alta Tall Fescuegrass, Later Orchardgrass and Yellow Sweet Clover	87	40	78	48
3. Tall Fescuegrass and Orchardgrass	84	55	77	43
4. Dale Butler Mix	57	25	50	30
5. Germains 2-8M Mix	73	30	72	35
6. NK Mix SW2	55	35	60	35
7. NK Mix SW5	53	30	57	28

Data are a summary of ratings given plants in three replications by four persons. Stand percent refers to the percent of plot occupied by plants. A yield rating of 100 is equal to 2000 lbs. hay equivalent per acre. Plots were grazed by horses.

Observations August, 1977

Alfalfa. A few plants of each variety remain, with Lahontan plots having the largest number of plants and greatest productivity.

Sweet Clover. Nearly all plants dead and productivity negligible.

Trefoil, Sainfoin and Burnet. Narrow-leaf birdsfoot trefoil plants have persisted better than those of the broadleaf varieties, but like alfalfa, stand have nearly disappeared. Stands of sainfoin and burnet were stronger than those of trefoil, but these species are not suited to the soil and irrigation regime of this test site.

Milkvetch. Lutana Cicer milkvetch had a 15% stand in two of the three replications, but an excellent stand and productivity in one plot where water supply (or penetration) was unusually good.

Wheatgrasses. Problems concerning precise identification of short, non-headed wheatgrasses made evaluation difficult. While persistence of tall and other wheatgrasses was fair to good, productivity was low except in the replication receiving the most irrigation. Jose and Alkar tall wheatgrass are well suited to placed such as the test side when 2 to 3 acre feet of water, in addition to precipitation, are applied annually.

Tall Fescuegrass. Alta, Goar and Kenhy tall fescuegrass exhibited good stands. Productivity in the better irrigated replication was excellent.

Lovegrasses. Atherstone lovegrass plots continued to have the best stands of the lovegrasses included. Self-seeding of lovegrass in adjacent plots indicated a good potential for these grasses under dryfarm or limited irrigation.

Bermudagrass. NK 37 bermudagrass continued to persist with moderate productivity.

Hard Fescuegrass. Durar hard fescuegrass may be suitable for lawns where irrigation will be limited and where elevation in Arizona is about 4000 feet.

Kleingrass. The star of grasses at the time of 1977 observations was kleingrass. This grass may fit limited irrigation conditions of the intermediate elevations of Arizona. It is deserving of emphasis in future on-farm test plot research.

Other Grasses. Alkali sacation has performed very well at this test site. It survives under limited irrigation with good stands and is reasonably productive.