TECHNICAL NOTES

U.S. Department of Agriculture

Natural Resources Conservation Service

TN-PLANT MATERIALS-73

February 2005

Tulelake Inter-Center Strain Trial

The Tulelake (ICST) Inter-Center Strain Trial was established to determine the best conservation plant materials to use in conservation practices funded by Farm Bill programs in the Tulelake area (MLRA 21). Forty two grasses, shrubs and legumes were established in the spring of 2002 and evaluated for stand establishment, height, seed amount, seed fill, vigor, weed suppression, lodging, cold/frost damage and wildlife value. The site was irrigated and weed control was provided. An additional ICST site was planted in Dorris in the fall of 2002 and this site was not irrigated.

When supplemental irrigation water is applied for initial stand establishment there is an overall excellent stand establishment. The varieties which had excellent results over three years are: Largo Tall Wheatgrass, San Luis Slender Wheatgrass, Magnar Basin Wildrye, Hycrest Crested Wheatgrass, Reliant Intermediate Wheatgrass and CDII Crested Wheatgrass.

When supplemental irrigation water is not applied there is very poor stand establishment. At the Dorris planting site only Tusas Bottlebrush Squirrel Tail and Jose Tall Wheatgrass produced a small stands consisting of ten percent cover and a height of 24".

The shrubs did not have great success when direct seeded; however, when planted as seedlings Lassen Bitterbrush, Great Basin Fourwing Saltbush and Great Basin Big Sagebrush did excellent and had one to two feet of growth the first year. The use of landscape fabric, fertilizer tablets and rodent guards ensured success.

Prepared by David A. Dyer, Plant Materials Center Manager, Lockeford, CA. and Dennis Moore, Area Resource Conservationist, Napa, CA. Reviewed by Gene Kelley, District Conservationist, Tulelake, CA.

	ad height ", seed amt, seed fill, vigor, wildlife v		ellent 9= poor
1 Elymus elymoides	Bottlebrush Squirrel Tail	San Hollow	20, 10, 20, 3, 3, 5, 6, 5
2 Agropyron cristatum	Crested Wheatgrass	Douglas	80, 8, 24, 5, 2, 5, 6, 5
3 Elytrigia elongata	Tall Wheatgrass	Largo	95, 24, 48, 1, 1 , 1, 1, 3
4 Elytrigia elongata	Bottlebrush Squirrel Tail	Tusas	15, 10, 18, 4, 2, 5, 7, 5
5 Oryzopsis hymenoides	Indian Ricegrass	Paloma	20, 8, 15, 3, 2, 3, 3, 2
6 Elytrigia elongata	Tall Wheatgrass	Jose	95, 8, 30, 5, 3, 5, 6, 8
7 Elymus trachycaulus	Slender Wheatgrass	San Luis	90, 20, 35, 2, 2, 2, 2, 2,
8 Elytrigia elongata	Tall Wheatgrass	Alkar	95, 8, 30, 4, 2, 4, 7, 7
9 Elymus lanceolatus	Thickspike Wheatgrass	Schwendimar	90, 30, 40, 2, 2, 2, 2, 7
10 Festuca ovina	Sheep fescue	Covar	10, 4, -, -, -, 3, 8, 2
11 Pseudoroegneria spicata	Beardless Bluebunch Wheatgrass	Whitmar	50, 12, 30, 3, 2, 5, 5, 2
12 Pseudoroegneria spicata	Bluebunch Wheatgrass	Secar	20,12, 20, 3, 2, 2, 4, 2
13 Poa secunda	Big Bluegrass	Sherman	90, 12, 24, 5, 2, 2, 4, 2
14 Elymus lanceolatus	Streambank Wheatgrass	Sodar	40, 8, 20, 6, 2, 5, 6, 2
15 Leymus cinereus	Basin Wildrye	Magnar	95, 36, 48, 5, 2, 1, 1, 5
16 Agropyron cristatum	Crested Wheatgrass	Ephraim	60, 12,20, 2, 2, 4, 5, 2
17 Agronpyron cristatumXdesertorum	Crested Wheatgrass	Hycrest	60, 12, 24, 1, 1, 3, 4, 2
18 Agropyron fragile	Siberian Wheatgrass	P-27	40, 8, 24, 3, 2, 5, 6, 2
19 Oryzopsis hymenoides	Indian Ricegrass	Nezpar	80, 15, 20, 1, 1, 1, 2, 2
20 Elytrigia intermedia	Intermediate Wheatgrass	Rush	80, 8, -, -, -, 6, 6, 5
21 Elymus lanceolatus	Thickspike Wheatgrass	Bannock	85, 20, 36, 5, 3, 4, 3, 5
22 Psathyrostachys juncea	Russian Wildrye	Mankota	70, 8, -, -, -, 5, 6, 5
23 Elytrigia intermedia	Intermediate Wheatgrass	Reliant	80, 12, -, -, -, 2, 4, 4
24 Elytrigia intermedia	Pubescent Intermediate Wheatgrass	Manska	95,12,-, -, -, 2, 4, 5
25 Agropyron desertorum	Crested Wheatgrass	Nordan	50, 12, 24, 3, 2, 2 , 2, 2
26 Oryzopsis hymenoides	Indian Ricegrass	Rimrock	20, 4, -, -, -, 8, 8, 2
27 Leymus cinereus	Baisn Wildrye	Trailhead	85, 8, -, -, -, 5, 5, 7
28 Pascopyrom smithii	Western Wheatgrass	Rosana	80, 10, -, -, -, 4, 5, 2
29 Elymus lanceolatus	Thickspike Wheatgrass	Critana	80, 12, 30, 8, 5, 3, 5, 2
30 Poa secunda	Sandberg Bluegrass	High Plains	
31 Elymus trachycaulus	Slender Wheatgrass	Pryor	95, 24, 42, 1, 1, 1, 1, 7
32 Agropyron fragile	Siberian Wheatgrass	Vavilov	70, 6, 26, 3, 2, 5, 5, 2
33 Agropyron cristatum	Crested Wheatgrass	CDII	90, 18, 33, 1, 1, 1, 2, 1
34 Pseudoroegneria spicata	Bluebunch Wheatgrass	Goldar	60, 12, 30, 4, 3, 2, 3, 2
35 Linum perenne	Lewis Flax	Appar	60, 16, 16, 5, 5, 2, 4, 2
36 Penstemon eatonii	Firecracker Penstemon	Richfield	2, 6, -, -, -, 5, -, 3
37 Hedysarum boreale	Utah Sweetvetch	Timp	5, 12, -, -, -, 6, -, 3
38 Pershia tridentata	Antelope bitterbrush	Maybell	2, 6, -, -, -, 3, -, -
39 Atriplex canescens	Fourwing Saltbush	Rincon	5, 8, -, -, 2, -, -
40 Leymus cinereus	Dahurian Wildrye	Dahurian	80, 12, 24, 7, 3, 5, 5, 5
41	Yellow sweet clover		90, 12, -, -, 3, 5, 2
42	Buckwheat		, , , , -, -, -