

UNITED STATES DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

and

AGRICULTURAL RESEARCH SERVICE

and the

UNIVERSITY OF ARIZONA AGRICULTURAL EXPERIMENT STATION

NOTICE OF NAMING AND RELEASE OF  
'SANTA RITA' FOURWING SALTBUSH (*ATRIPLEX CANESCENS*)

The U. S. Department of Agriculture, Soil Conservation Service and U.S.D.A. Agricultural Research Service and the University of Arizona Agricultural Experiment Station announce the naming and release of 'Santa Rita' fourwing saltbush [*Atriplex canescens* (Pursh) Nutt] for commercial production and marketing of seed and plants.

Origin: Fourwing saltbush is also commonly known as wingscale, cenizo, chamiso, chamisa and white greasewood. 'Santa Rita' fourwing saltbush originated from a seed collection made by S. Clark Martin from a native stand on the Santa Rita Experimental Range (SRER), Pima County, Arizona, in December of 1962. Santa Rita Experimental Range (USFS) is located 30 miles south of Tucson and six miles east of Green Valley, Arizona. The site is at 3100 feet (945 m) elevation. The average annual precipitation is 12 inches (30 cm) at Sec 3, T18S, R14E Gila-Baseline-Meridian on the SRER. The mean annual temperature is about 64°F (18°C). Winter temperatures regularly get as low as 23°F (-5°C). Summer temperatures may reach 105°F (40.5°C) or higher.

Other Identification Used: 'Santa Rita' has been tested under the following control numbers:

P-15644 USDA-SCS Western Regional Plant Materials Control Number  
A-16805 Tucson, Arizona USDA-SCS Plant Materials Center  
BN-15412-63 Beltsville, Maryland USDA-SCS National Plant Materials  
Center  
9003553 USDA, SCS National Plant Materials Center

Description: 'Santa Rita' fourwing saltbush is an erect, evergreen shrub, diffusely-branched, variable in shape. 1.5-2.5 m tall and deep-rooted. The stems are stout, terete, smooth, gray-scurfy, with the older bark gray and exfoliating in thin layers. The leaves are numerous, evergreen, alternate, sessile or short-petioled, linear to elliptic or oblong to spatulate, apex usually obtuse, base narrowed, margin entire, 1-5 cm long, 0.3-1.3 cm wide, one-nerved, thick, and densely gray-scurfy. Plants are dioecious, rarely monoecious; staminate flowers are densely spicate from terminal panicles which are leafy toward the base; pistillate flowers occur in dense leafy and

bracted spikes and panicles; staminate perianth is 3-5 cleft (3-5 stamens); pistillate absent. 2 stigmas; fruit bracts are sessile or short peduncled, the body (4-12 mm long), united to bifid apex. developing 2 pairs of wings, margin of wings is usually entire. The seeds are 1.5-2.5 mm long, brown, radicle superior. 'Santa Rita' is diploid according to Dr. H. Stutz, Brigham Young University, Provo, Utah.

Development and Use: 'Santa Rita' fourwing saltbush was comparatively evaluated with eight accessions of fourwing saltbush in the 1966 Shrub Initial Evaluation Planting (IEP) and thirty-five accessions of saltbush in the 1969 Shrub IEP. 'Santa Rita' was selected as being the best overall performer in vigor and cover. In 1980, rooted cuttings from the original material was used to establish a breeder's block. A ratio of one (1) male to five (5) female plants were space planted with 5 feet within the rows and 15 feet between rows. Continued testing included both plants and direct seeding at about 25 sites in southern Arizona, California, New Mexico and Texas. This strain has shown superior performance to all accessions of fourwing saltbush. including the standard of comparison, 'Narana'.

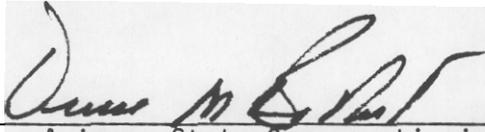
It has estimated seed yields of 350 pounds of dewinged seed per acre (393 kg/ha) per year with specified orchard design. There are about 60,000 dewinged seeds per pound (132,000/kg).

'Santa Rita' was selected for use in critical area stabilization, shelterbelts. range improvement and improvement of the vegetative components of wildlife habitat. Its leaves, stems and fruit provide browse in all seasons for livestock and wildlife.

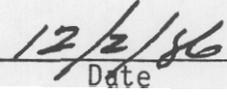
Area of Adaatation: Fourwing saltbush is one of the most widespread and adaptable of North American shrubs. It grows in a variety of soil types from the Great Plains to the Pacific coast ranges and from Canada to Mexico at elevations from below sea level to 8000 feet (2440 m). 'Santa Rita' fourwing saltbush is well adapted to a wide range of soil textures from sandy loams to clay loams. 'Santa Rita' fourwing saltbush is best adapted to the Sonoran desert zones but also does well in the Mohave and Chihuahuan deserts. It appears to have salt tolerance similar to other fourwing saltbush strains. Due to its hot desert origin, 'Santa Rita' has performed significantly better than 'Rincon', 'Wytana' and 'Narana' in the southwestern climatic zones. It is a taller. more vigorous grower than any other accession but is not as cold tolerant. 'Santa Rita' fourwing saltbush is adapted to 200 to 4000 feet (61-1220 m) elevation and to an average annual precipitation of 8 to 16 inches (20-41 cm).

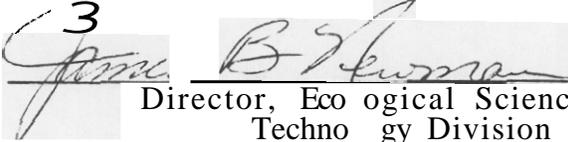
Seed and Plant Source: The Tucson Plant Materials Center will be responsible for maintaining a supply of foundation and breeder seed. Foundation seed and plants will be available for establishing seed source nurseries for commercial production through the Arizona Crop Improvement Association. Standards for all classes of seed will be included in the Arizona Seed Certification Handbook.

Suggested release date of 'Santa Rita' fourwing saltbush is March, 1987. Limited quantities of foundation seed and plants will be available immediately for commercial nursery production.

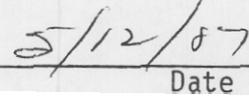


Arizona State Conservationist  
USDA - Soil Conservation Service

  
Date

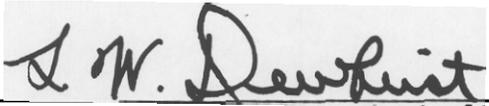
<sup>3</sup>  


Director, Ecological Sciences and  
Technology Division  
USDA - Soil Conservation Service

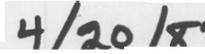
  
Date

Staff Scientist  
National Program Staff  
USDA - Agricultural Research Service

Date



Director, Arizona Agricultural  
Experiment Station  
University of Arizona



Date

Table 1

## 1966 COOL-SEASON FORB AND SHRUB SPECIES IEP

<u>Genus/Species</u>	<u>ID No.</u>	<u>Comp Ratio</u>	<u>Plant Date</u>	<u>Eval Years</u>	<u>Germ Rating</u>	<u>Plant Establish</u>	<u>Stand Uniform</u>	<u>Avg Vigor</u>	<u>Canopy Size (cm)</u>	
									<u>Height</u>	<u>Width</u>
Atriplex canescens	A-16831	2	11/66	66-70	2	2	3	2	76	89
Atriplex canescens	A-16568	3	11/66	66-70	2	3	3	3	81	76
Atriplex canescens	T04468	2	11/66	66-70	1	2	2	1	122	122
Atriplex canescens	T03553	2	11/66	66-70	2	2	2	1	139	128
Atriplex canescens	P-15585	4	11/66	66-70	2	4	4	4	30	101
Atriplex lentiformis	A-17079	2	11/66	66-70	1	2	2	2	114	101
Atriplex lentiformis	T26898	3	11/66	66-70	1	4	3	4	76	81
Atriplex nuttallii	P-15586	4	11/66	66-70	5	4	4	4	18	36

## 1970 SHRUB AND FORB SPECIES IEP

Atriplex atacamensis	330655		4/70	70-74	No emergence					
Atriplex canescens	T04468	2	4/70	70-74	1	2	3	3	110	95
Atriplex canescens	T03553	1	4/70	70-74	2	1	2	2	145	130
Atriplex canescens	T03554	3	4/70	70-74	2	1	3	3	80	85
Atriplex canescens	A-17358	3	4/70	70-74	2	3	3	3	81	76
Atriplex canescens	T04468	3	4/70	70-74	2	3	3	3	60	90
Atriplex canescens	330657	2	4/70	70-74	2	2	2	3	92	95
Atriplex canescens	330658	3	4/70	70-74	1	3	2	4	75	90

Table 2

## 1977 SHRUB, TREE &amp; ANNUAL FORB IEP

(Best of 104 Atriplex spp. planted are rated below)

ID No.	Comp Rate	Plant Date	Germ Rate	1977 Estab	1978 Vigor	1979 Vigor	1980 Vigor	1981 Vigor	Leaf Prod	Seed Prod	Abil Spread	'79 % Stand	1978-Can Hgt	1978-Can Wdh	1980-Can Hgt	1980-Can Wdh
T03553	2	9/77	5	2	2	3	2	3	3	5	7	60	120	210	200	450
T03554	4	9/77	3	6	6	2	3	4	5	0	0	40	130	210	170	420
T03555	6	9/77	3	6	6	5	6	6	5	0	0	40	110	170	150	240
T04468	<sup>a</sup>	9/77	8													
346419	<sup>b</sup>	9/77	9	8												
T03557	5	9/77	5	5	5	3	6	7	5	0	0	40	120	190	130	450
T03558	5	9/77	5	3	3	4	6	7	5	7	9	60	120	190	140	400
T03559	5	9/77	7	4	4	4	5	6	5	5	0	90	135	190	160	200
T03560	7	9/77	5	7	7	7	8	7	7	0	0	30	120	175	120	150
T03562	7	9/77	5	7	7	7	8	9	7	0	0	40	100	165	90	110
T03563	5	9/77	5	5	5	4	6	7	5	0	0	90	110	170	140	220
T03565	6	9/77	3	6	6	6	6	5	5	0	0	10	110	60	140	243
T03566	5	9/77	5	3	3	4	6	5	5	7	9	70	140	210	145	230
T03567	7	9/77	7	4	4	4	8	6	5	7	9	80	120	215	160	220
T03568	5	9/77	5	5	5	4	5	5	5	5	9	70	110	195	130	200
330657	5	9/77	5	5	5	6	5	6	5	0	0	20	80	100	65	130
T03569	4	9/77	3	4	3	4	3	5	5	3	9	50	145	215		
346419	9	9/77	9	8	8	7	5		7	0	0	40	15	65	10	10 <sup>c</sup>

NOTE: All accessions listed are Atriplex canescens.

- <sup>a</sup> Died 12/77  
<sup>b</sup> Died 12/78  
<sup>c</sup> Died 1980

Table 3

1971-73 Pima Mining Company FEP  
(Mixed Tailings Barley Stubble Plot)

Genus/Species	Ident	Overall Vigor <sup>1</sup>	Seedling Establishment	% Stand
Atriplex semibaccata	Corto	1	3	60
Atriplex semibaccata	299488	1	2	80
Atriplex canescens	T03553	1	2	80
Atriplex canescens	A-16652	1	2	80
Atriplex lentiformis	330671	1	2	80
Enchylaena tomentosa	106712	3	4	20

Table 4

1970 Wellton Highway Mulch-Tucked Plots  
(Irrigated to Establish)

Genus/Species	Ident	Overall Vigor <sup>1</sup>	Seedling Establishment	1972 Vigor	1973 Vigor
Atriplex semibaccata	Corto	5	5	6	6
Atriplex semibaccata	299488	5	5	6	6
Enchylaena tomentosa	106712	6	6	6	0
Atriplex canescens	T03553	1	1	1	2
Atriplex lentiformis	330671	1	1	2	2

Table 5

1970 Wellton Highway Mulch-Tucked Plots  
(Non-Irrigated)

Genus/Species	Ident	Overall Vigor <sup>1</sup>	Seedling Establishment	1972 Vigor	1973 Vigor
Atriplex semibaccata	Corto		0	0	0
Atriplex semibaccata	299488		0	0	0
Enchylaena tomentosa	106712		5	0	0
Atriplex canescens	T03553	2	2	4	5
Atriplex lentiformis	330671		0	0	0

<sup>1</sup> Ratings: 1=excellent; 4=average; 9=very poor; 0=died

Table 6

## 1977-79 RED ROCK CFT

<u>Genus/Species</u>	<u>Ident</u>	<u>Plant Date</u>	<u>Years Eval</u>	<u>Overall Rating</u>	<u>Germ</u>	<u>Estab</u>	<u>1981 Vigor</u>	<u>1984 % Stand</u>	<u>1984 Height</u>	<u>1984 Canopy (cm) Width</u>
Atriplex canescens	T03553	9/77	77-84	1	3	3	2	60	148	165
Atriplex canescens	T03553	10/79	79-84	1	3	2	1	95	156	173
Atriplex lentiformis	330671	9/77	77-84	3	2	5	5	5	120	145
Atriplex lentiformis	330671	10/79	79-84	3	2	5	5	10	180	200
Atriplex nummularia	T03612	9/77	77-		8	9				
Atriplex nummularia	T03612	10/79	77-		8	8	9	<5	75	80

Ratings: 1-excellent; 4-average; 9-very poor; 0=died

Table 7

## 1978 RANGE SEEDINGS IN SOUTHERN ARIZONA

(Harvey Nessmith's Trial Plots)

Genus/Species	Ident	Overall Viaor	Seedling Vigor	Location
Atriplex canescens	T03553	1	1	Florence
Atriplex lentiformis	330671			Florence
Atriplex semibaccata	Corto	3	2	Florence
Atriplex polycarpa	399195			Florence
Atriplex canescens	A-19194			Florence
Atriplex canescens	T03553	1	1	Apache Junction
Atriplex lentiformis	330671			Apache Junction
Atriplex semibaccata	Corto	2	3	Apache Junction
Atriplex polycarpa	399195			Apache Junction
Atriplex canescens	A-19194			Apache Junction

Ratings: 1-excellent; 4-average; 9-very poor; 0=died

Table 8

## 1970 LEGUME, SHRUB &amp; FORT SPECIES ADVANCED EVALUATION PLANTINGS

Final Summary for *Atriplex canescens* Accessions

Identifications	Eval Year	Vigor	Leaf Prod	Seed Prod	Cold Resist	Date kature	Stand Rate	Canopy (cm)	
								Height	Width
PI 330657	1970	5					3		
	1971	1			1		3		
	1972	1	1	3	3	8-17	7	91	122
	1973	1		1	1		7	127	189
PI 330658	1970	7					3		
	1971	5			1		3		
	1972	3	5	5	5		5		
	1973	3		9	1			102	152
A-16652, T04468	1970	5					5		
	1971	3			1		5		
	1972	1	1	3	5		7	76	91
	1973	3	3	9	5			173	224
T03553, A-16805 'Santa Rita'	1970	5					5		
	1971	3			1		5		
	1972	1	1	1	3	8-17	1	107	107
	1973	1	1	1	1	8-15	1	173	254
T03554, A-17157	1970	5					5		
	1971	3			1		5		
	1972	3	5	5	3		5	61	61
	1973	3		7	3			152	165
T04468, A-17452	1970	5					5		
	1971	1			1		5		
	1972	1	1	3	5		5	76	91
	1973	3	1	9	5			173	178
A-17358	1970	5					5		
	1971	3			1		5		
	1972	1	1			9-01	5		
	1973	3		7	3			142	132

Ratings: 1=excellent; 4=average; 9=very poor

Table 9

## 1972 CHANNEL SLOPE FEP

(Located at the TPMC on the North-Facing Slope)

Genus/Species	Ident.	Seed Date	Comp <sup>1</sup> Vigor	Leaf Prod	Seed Prod	% Stand	1975 Canopy(cm) Height	Width	Mature Date	Uniform Rating
Atriplex canescens	346419	3/72	7	9	9	5	7	10		7
Atriplex canescens	330657	3/72	4	1		15	100	120		4
Atriplex canescens	392078	3/72	2	2		5	65	80		4
Atriplex canescens	T03553	2/72	1	2	7	70	200	230	July	1
Atriplex lentiformis	T26898	3/72	4	6		90	300	290		1
Atriplex sernibaccata	A-17852	3/72	No emergence							

<sup>1</sup> Ratings: 1=excellent; 3=good; 4=average; 7=poor; 9=very poor; 0=dead

Table 10

## 1977 HAYDEN, ARIZONA MINE TAILINGS

(Transplanted Shrubs)

Genus/Species	Ident.	Non-Limed Site <sup>1</sup>	Limed Site <sup>1</sup>	Remarks
Atriplex lentiformis	330671	0	7	
Atriplex polycarpa	T03608	0	9	
Atriplex torreyt	T03619	7	5	
Atriplex rhagodiodes	T03614	7	6	Insect galls on LIMED
Atriplex nummularia	T03612	7	3	
Atriplex muelleri	T03599	7	5	Many dead branches on both sites
Atriplex spongiosum	330668	0	4	One good plant; others dead on LIMED
Atriplex glauca	T03586	4	4	Seed set on both sites
Atriplex canescens	T03553	3	1	Appears to have good cold and drought tolerance

<sup>1</sup> Ratings: 1-excellent; 3=good; 4=average; 7=poor; 9=very poor; 0=dead

Table 11

## 1979 CATERPILLAR PROVING GROUNDS FEP

<u>Genus/Species</u>	<u>Ident.</u>	<u>Treatment</u>	<u>Stand</u>	<u>Plant</u> <u>Height(cm)</u>	<u>5/82</u> <u>Vigor<sup>1</sup></u>	<u>9/82</u> <u>Vigor<sup>1</sup></u>	<u>1/85</u> <u>Vigor<sup>1</sup></u>
Atriplex canescens	T03553	Furrows	4	76	1	2	1
		Potholes	10	122	1	1	1
		Sand Mulch	25	46	2	2	1
		Benches	80	81	3	3	3
Atriplex lentiformis	330671	Furrows	2	30	3	3	4
		Potholes	4	20	3	3	5
		Sand Mulch	0	0	0		
		Benches	20	25	3	3	4
Atriplex nummularia	T03612	Furrows	0		0		
		Potholes	0		0		
		Sand Mulch	0		0		
		Benches	0		0		
Atriplex semibaccata	432439 Corto	Furrows	10	15	1	4	6
		Potholes	75	15	3	4	6
		Sand Mulch	0	0	0	0	
		Benches	10	15	3	7	9

<sup>1</sup> Ratings: 1-excellent; 3=good; 4-average; 7=poor; 9=very poor; 0=dead

Table 12

## 1982 FOURWING SALTBUSH INTER-CENTER STRAIN TRIAL

(Located at Red Rock, Arizona)

Accession	Plant Date	1986 % Stand	1984 Vigor <sup>1</sup>	1985 Vigor <sup>1</sup>	1986 Vigor <sup>1</sup>	Average 1985 Plant Height(cm)	Average 1985 Canopy Width(cm)	Remarks
PI 476816	1/82	80	4	4	3	70	48	'Marana'
PI 346419	1/82	0	0					'Wytana'
PI 478841	1/82	0	0					'Rincon'
T03553	1/82	60	2	3	1	99	75	Appears to be resistant to rabbit damage 'Santa Rita'
PI 478837	1/82	0	0					
T04473	1/82	16	6	7	5	87	47	
PI 478838	1/82	0	0					
T04478	1/82	20	6	7	8	10	10	
T04488	1/82	0	7	0				
PI 432434	1/82	20	6	6	6	20	10	Grazed by rabbits
PI 432436	1/82	20	2	3	3	90	91	
T03126	1/82	20	7	8	9	9	9	
T03134	1/82	40	6	7	6	45	34	
T03135	1/82	0	8	0				
T03136	1/82	0	9	0				Grazed by rabbits and/or rodents
T28162	1/82	20	5	5	6	44	27	
T28163	1/82	0	0					
T28164	1/82	0	7	0				
T28165	1/82	0	8	0				
T28166	1/82	0	0					
T30609	1/82	20	5	6	5	26	20	
T29097	1/82	20	4	3	3	103	108	
T29096	1/82	0	9	0				
T04474	1/82	40	5	6	5	30	27	Rabbit damage (one plant)

<sup>1</sup> Ratings: 1-excellent; 3=good; 4=average; 7=poor; 9=very poor; 0=dead

Table 13

1984 PAGE RANCH FEP

(Transplanted Shrubs)

<u>Genus/Species</u>	<u>Ident.</u>	<u>Eval</u>	<u>%</u>	<u>Leaf</u>	<u>'Seed</u>	<u>Plant</u>	<u>Average</u>	<u>Average</u>
		<u>Year</u>	<u>Stand</u>	<u>Prod</u>	<u>Prod</u>	<u>Vigor</u> <sup>1</sup>	<u>Ht(cm)</u>	<u>Canopy</u>
								<u>Wd(cm)</u>
Atriplex canescens	T03553	1984	80	3	0	2	48	41
		1985	75	2	5	2	120	98
		1986	50	2	3	1	119	102
Atriplex canescens	Marana	1984	75	4	0	5	38	30
	476816	1985	63	5	0	6	80	50
		1986	50	5	9	3	80	61
Atriplex canescens	330671	1984	0	0	0	0		
Atriplex canescens	Casa	1984	0	0	0	0		

<sup>1</sup> Ratings: 1=excellent; 3=good; 4=average; 7=poor; 9=very poor; 0=dead

Table 14

1982 FOURWING SALTBUSH INTER-CENTER STRAIN TRIAL  
(Antelope Valley, California)

PI Number	Eval Year	No. Surv	Base Dia(cm)	Canopy Wd(cm)	Plant Ht(cm)	Vigor	Unif	Stem Abun	Stem Dens	Fol. Abun	Fol. Dens
T30609	1984	5	5	240	100	2	2	3	3	3	3
Rincon	1985	5	6	300	110	1	1	2	2	2	2
346819	1984	0									
Wytana	1985	0									
476816	1984	6	6	190	90	2	1	2	2	3	3
Marana	1985	6	8	210	90	1	1	2	2	2	2
T03126	1984	2	5	170	80	2	2	3	3	3	3
	1985	2	5	200	80	2	2	2	2	2	2
T03134	1984	5	4	200	70	1	2	3	3	3	3
	1985	5	6	220	80	1	1	2	2	2	2
T03135	1984	5	4	150	90	3	2	3	3	3	3
	1985	5	4	160	100	3	2	2	2	2	2
T03136	1984	5	2	100	60	2	1	2	2	3	3
	1985	5	3	100	70	3	2	2	2	2	2
T03553	1984	4	6	170	100	2	2	3	3	2	2
Santa Rita	1985	4	7	190	110	1	2	2	2	2	2
T04468	1984	4	5	160	90	2	2	3	3	3	3
	1985	4	6	180	90	2	2	2	2	2	2
T04473	1984	5	4	100	80	3	3	3	4	3	3
	1985	5	5	140	80	4	4	2	2	2	2
T04474	1984	4	3	100	80	4	4	3	4	3	3
	1985	4	3	120	80	5	4	2	2	2	2
T04478	1984	3	3	100	70	4	6	3	4	3	3
	1985	3	3	140	80	4	4	2	2	2	2
T04488	1984	5	3	120	80	5	4	3	4	3	3
	1985	5	4	160	80	4	4	2	2	2	2
T28162	1984	4	2	110	90	4	6	3	4	3	3
	1985	4	3	140	100	6	6	2	2	2	2
T28163	1984	5	4	140	70	2	3	3	3	3	3
	1985	5	6	170	70	2	2	2	2	2	2
T28164	1984	4	5	140	80	4	4	3	4	3	3
	1985	4	5	140	70	6	6	3	3	3	3
T28165	1984	5	3	130	60	4	4	3	4	3	3
	1985	5	3	160	70	6	5	3	3	3	3
T29096	1984	5	4	150	100	4	4	3	4	3	3
	1985	5	4	180	100	3	3	3	3	3	3
T29097	1984	5	6	220	110	3	3	3	3	3	3
	1985	5	8	280	90	2	2	3	3	3	3
432434	1984	5	6	180	70	2	2	3	3	3	3
	1985	5	7	180	80	2	2	3	3	3	3
432436	1984	6	4	110	40	2	3	3	3	3	3
	1985	6	6	130	60	2	2	3	3	3	3

Ratings: 1-excellent; 2-good; 4-average; 7-poor; 9-very poor; 0=dead

Table 15

1982 FOURWING SALTEUSH INTER-CENTER STRAIN TRIAL

(Knox City, Texas)

PI No/Cultivar	1984 Vigor <sup>1</sup>	1985 Vigor <sup>1</sup>
T04473	2	2
Rincon	3	3
T29096	4	4
T04488	5	5
T03553 <sup>2</sup>	5	6
Wytana	7	9
432434	2	2
T28162	3	3
T04468	4	4
T03136	5	6
T03135	6	6
T04474	3	3
T29097	4	4
Marana	5	5
432436	4	4
T03126	5	5
T28163	4	4
T03134	5	5
T28164	5	5
T04478	5	5
T28165	5	5

<sup>1</sup> Ratings: 1-excellent; 5-average; 9=very poor  
<sup>2</sup> 'Santa Rita'; some winter dieback

Table 16

## Corp of Engineers Planting

Santa Fe, New Mexico

<u>Species/Accession</u>	<u>Plant Date</u>	<u>Vigor</u>	<u>Height</u>	<u>Width</u>	<u>% Survival</u>	<u>Evaluation Date</u>
ATCA-Marana	7/82	3	18	12	25	10/84
ATCA-9003553	7/82	3	18	16	60	10/84
ATFA-9005294	7/82	0	0	0	0	10/84

NOTE: Information provided by William Fuller



**Subject:** Plant Materials plot evaluations  
1977 MLRA 40 CFTs

**Date:** July 25, 1986

**To:** Scott Lambert

**File Code:**

On July 25, 1986 I took you to two old CFT plots in 40 Resource Area to look at T-3553 fourwing saltbush planted in 1977. The Yost Ranch plot near Florence Junction is located in SE 1/4, SE 1/4 Sec 29 T1S R10E at an elevation of 1980 ft. The range site is, Clay loam upland 40-1 (10-12 in.ppt.). Of the 35 species seeded in 1977 (11-3-77) only 5 are alive today:

T-3553 fourwing saltbush- one large male and one large female plant exist on the plot. Both are in good vigor. We counted 12 young plants (1-2 ft.) in the plot which are the offspring of the mature ones.

Cochise lovegrass - established plants in fair vigor with reproduction filling in parts of the plot.

A-68 Lehman's lovegrass - established plants in fair vigor with reproduction filling parts of the plot.

Catalina Boers lovegrass- established plants in fair vigor with some reproduction.

Common Bufflegress - planted in June 1980 established plants with fair vigor and no reproduction.

The Cunningham (now Bader) Ranch plot near Cochran is located in the SW 1/4, SW 1/4 Sec 11 T5S R11E at an elevation of 2250 ft. The range site is, Sandy loam upland 40-1 (10-12 in.ppt.). Of the 35 species seeded in 1977 (10-26-77) only 6 are alive today:

T-3553 fourwing saltbush- one large male and one large female plant exist on the plot. Both are in good vigor. We saw no reproduction on this species.

Cochise lovegrass - established plants and lots of reproduction, spreading throughout the plot. Good vigor.

Catalina Boers lovegrass- established plants and lots of reproduction, spreading throughout the plot. Good vigor.



A-68 Lehmans lovegrass - established plants and lots of reproduction, spreading throughout the plot. Good vigor. Some mortality of older plants indicating a shorter lifespan for Lehmans as opposed to Cochise & Boers.

Palar Wilman lovegrass - established plants in poor vigor, no reproduction.

Viva galleta grass - established plant in good vigor, no reproduction.

I'll get the photos we took to you as soon as I get them developed.



Dan Robinett  
Range Conservationist  
Tucson Area Office

cc Jake Garrison