

North Carolina State University

WINTER ANNUAL BROADLEAF WEED CONTROL WITH PREPLANT INCORPORATED AND PREEMERGENCE HERBICIDES (RUN #2)

Trial ID: 01-GH4

Study Dir.: F.H. YELVERTON

Location: NCSU GREENHOUSE

Investigator: Crop Science Department

GENERAL TRIAL INFORMATION

Study Director: F.H. YELVERTON

Title: PROFESSOR

Affiliation: NORTH CAROLINA STATE UNIVERSITY

Postal Code: 27695

Investigator: LEON WARREN

Title: RESEARCH SPECIALIST

Affiliation: NORTH CAROLINA STATE UNIVERSITY

Postal Code: 27695

TRIAL LOCATION

City: RALEIGH

Trial Status: COMPLETED

State/Prov.: NC

Postal Code: 27607

Initiation Date: 02-08-01

Country: USA

COOPERATOR/LANDOWNER

Cooperator: DAVID L. KING

Country: USA

Org: NORTH CAROLINA DOT

Phone No: 919/733-2920

Address 1: P.O. BOX 25201

Fax No: 919/733-9810

City: RALEIGH

State/Prov: NC

Postal Code: 27611-5201

Conducted Under GLP (Y/N): N

Conducted Under GEP (Y/N): N

Objective: TO EVALUATE EFFICACY OF PREPLANT INCORPORATED AND PREEMERGENCE HERBICIDES FOR CAROLINA GERANIUM, VIRGINIA PEPPERWEED, SHEPHERDSPURSE AND SPINY SOWTHISTLE CONTROL

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	GERCA	GERANIUM, CAROLINA	GERANIUM CAROLINIANUM L.
2.	LEPVI	PEPPERWEED, VIRGINIA	LEPIDIUM VIRGINICUM L.
3.	CAPBP	SHEPHERDSPURSE	CAPSELLA BURSA-PASTORIS (L.) MEDIK.
4.	SONAS	SOWTHISTLE, SPINY	SONCHUS ASPER (L.) HILL

Crop 1: NONE

SITE AND DESIGN

Plot Width, Unit: 0.5 FT

Plot Length, Unit: 0.5 FT

Reps: 3

Site Type: GREENHOUSE

Tillage Type: N/A

Study Design: RANDOMIZED COMPLETE BLOCK

SOIL DESCRIPTION

Texture: GREENHOUSE MIX (SOIL, SAND, METRO-MIX)

Soil Name: N/A

Fert. Level: GOOD

Overall Moisture Conditions: IRRIGATED 2 TO 3X DAILY AT 5 MINUTE INTERVALS

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APPLICATION DESCRIPTION

	A	B
Application Date:	02-08-01	02-08-01
Time of Day:	10-11 AM	11-12NOON
Application Method:	SPRAY	SPRAY
Application Timing:	PPI	PRE
Applic. Placement:	BROSOI	BROSOI
Air Temp., Unit:	60 F	60 F
% Relative Humidity:	54	54
Wind Velocity, Unit:	0 MPH	0 MPH
Dew Presence (Y/N):	N	N
Soil Temp., Unit:	60 F	60 F
Soil Moisture:	MOIST	MOIST
% Cloud Cover:	0	0

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	NONE	NONE

WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code, Stage:	GERCA PREPLANT	GERCA SEEDED
Weed 2 Code, Stage:	LEPVI PREPLANT	LEPVI SEEDED
Weed 3 Code, Stage:	CAPBP PREPLANT	CAPBP SEEDED
Weed 4 Code, Stage:	SONAS PREPLANT	SONAS SEEDED

APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	SPCHAMBER	SPCHAMBER
Operating Pressure:	34	34
Nozzle Type:	EVEN FLAT	EVEN FLAT
Nozzle Size:	XR8001EVS	XR8001EVS
Nozzle Spacing, Unit:	18 IN	18 IN
Band Width, Unit:	18 IN	18 IN
Boom Length, Unit:	18 IN	18 IN
Boom Height, Unit:	12 IN	12 IN
Ground Speed, Unit:	1.5 MPH	1.5 MPH
Incorporation Equip.:	BAGTOSSED	
Hours to Incorp.:	0.1	
Incorp. Depth, Unit:	4.0 IN	
Carrier:	WATER	WATER
Spray Volume, Unit:	20 GPA	20 GPA
Propellant:	COMCO2	COMCO2
Tank Mix (Y/N):	N	N

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Weed Code						GERCA	SONAS	LEPVI	CAPBP		
Rating Data Type						P-CONTRO	P-CONTRO	P-CONTRO	P-CONTRO		
Rating Unit						PERCENT	PERCENT	PERCENT	PERCENT		
Rating Date						03-01-01	03-01-01	03-01-01	03-01-01		
Trt-Eval Interval						21 DA-A	21 DA-A	21 DA-A	21 DA-A		
ARM Action Codes						P	P	P	P		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code				
1	EPTAM	7.0	EC	3.06	LB A/A	PPI	A	41.7 a-f	3.3 b	16.7 c	16.7 c
2	PREDICT	78.6	DF	0.98	LB A/A	PPI	A	0.0 f	96.7 a	99.3 a	99.3 a
3	PREFAR	4.0	EC	5.0	LB A/A	PPI	A	0.0 f	0.0 b	0.0 c	0.0 c
4	TREFLAN HFP	4.0	EC	0.5	LB A/A	PPI	A	33.3 c-f	0.0 b	0.0 c	0.0 c
5	ALANAP-L	2.0	L	2.0	LB A/A	PRE	B	100.0 a	100.0 a	83.3 a	96.7 a
6	AUTHORITY	75	DF	3.975	OZ A/A	PRE	B	96.7 ab	100.0 a	100.0 a	100.0 a
7	COTORAN	4.0	L	1.0	LB A/A	PRE	B	30.0 def	100.0 a	100.0 a	100.0 a
8	CURBIT	3.0	EC	1.125	LB A/A	PRE	B	40.0 a-f	3.3 b	100.0 a	100.0 a
9	DEVTRINOL	50	DF	2.0	LB A/A	PRE	B	71.7 a-e	75.0 a	96.7 a	99.7 a
10	FACTOR	65	WG	0.65	LB A/A	PRE	B	6.7 f	15.0 b	58.3 b	58.3 b
11	GALLERY	75	DF	0.5	LB A/A	PRE	B	100.0 a	100.0 a	100.0 a	100.0 a
12	GOAL XL	2.0	L	0.25	LB A/A	PRE	B	91.7 a-d	100.0 a	100.0 a	100.0 a
13	IMAGE LC	1.5	LC	0.375	LB A/A	PRE	B	36.7 b-f	70.0 a	100.0 a	100.0 a
14	KERB	50	WP	1.0	LB A/A	PRE	B	20.0 ef	98.3 a	100.0 a	100.0 a
15	PENDULUM	60	WG	1.5	LB A/A	PRE	B	93.3 abc	91.7 a	100.0 a	100.0 a
16	PENNANT LIQUID	8.0	EC	2.0	LB A/A	PRE	B	76.7 a-e	83.3 a	96.7 a	100.0 a
17	PLATEAU	2.0	AS	1.0	OZ A/A	PRE	B	36.7 b-f	0.0 b	55.0 b	71.7 b
18	SINBAR	80	WP	0.4	LB A/A	PRE	B	48.3 a-f	70.0 a	99.3 a	100.0 a
19	STAPLE	85	SP	0.51	OZ A/A	PRE	B	6.7 f	3.3 b	96.7 a	100.0 a
20	SURFLAN	4.0	AS	2.0	LB A/A	PRE	B	61.7 a-f	56.7 a	100.0 a	100.0 a
21	VELPAR	75	DF	0.5	LB A/A	PRE	B	81.7 a-e	83.3 a	98.3 a	100.0 a

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Weed Code	GERCA	SONAS	LEPVI	CAPBP
Rating Data Type	P-CONTRO	P-CONTRO	P-CONTRO	P-CONTRO
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date	03-01-01	03-01-01	03-01-01	03-01-01
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	21 DA-A
ARM Action Codes	P	P	P	P
Trt Treatment No. Name	Form Form Conc Type Rate	Rate Unit	Grow Appl Stg Code	
22 CHECK	0.0 f	0.0 b	0.0 c	0.0 c
LSD (P=.05)	52.75	36.80	22.93	21.37
Standard Deviation	31.96	22.30	13.90	12.95
CV	65.52	39.25	17.98	16.36
Bartlett's X2	30.97	32.718	44.331	31.137
P(Bartlett's X2)	0.014*	0.001*	0.001*	0.001*
Replicate F	0.108	0.619	1.184	2.745
Replicate Prob(F)	0.8976	0.5431	0.3160	0.0758
Treatment F	3.697	11.256	21.950	25.522
Treatment Prob(F)	0.0002	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

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Rating Data Type						P-CONTRO	P-CONTRO	P-CONTRO	P-CONTRO		
Rating Unit						PERCENT	PERCENT	PERCENT	PERCENT		
Rating Date						03-07-01	03-07-01	03-07-01	03-07-01		
Trt-Eval Interval						27 DA-A	27 DA-A	27 DA-A	27 DA-A		
ARM Action Codes						P	P	P	P		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Grow Unit	Appl Stg	Code				
1	EPTAM	7.0	EC	3.06	LB A/A	PPI	A	41.7 a-d	11.7 d	16.7 c	25.0 b
2	PREDICT	78.6	DF	0.98	LB A/A	PPI	A	0.0 d	96.7 a	100.0 a	100.0 a
3	PREFAR	4.0	EC	5.0	LB A/A	PPI	A	0.0 d	0.0 d	0.0 c	0.0 c
4	TREFLAN HFP	4.0	EC	0.5	LB A/A	PPI	A	33.3 cd	0.0 d	0.0 c	0.0 c
5	ALANAP-L	2.0	L	2.0	LB A/A	PRE	B	100.0 a	88.3 ab	66.7 b	91.7 a
6	AUTHORITY	75	DF	3.975	OZ A/A	PRE	B	75.0 abc	100.0 a	100.0 a	100.0 a
7	COTORAN	4.0	L	1.0	LB A/A	PRE	B	96.7 ab	99.7 a	100.0 a	100.0 a
8	CURBIT	3.0	EC	1.125	LB A/A	PRE	B	36.7 cd	0.0 d	98.3 a	100.0 a
9	DEVTRINOL	50	DF	2.0	LB A/A	PRE	B	75.0 abc	56.7 bc	98.3 a	100.0 a
10	FACTOR	65	WG	0.65	LB A/A	PRE	B	26.7 cd	66.7 abc	88.3 ab	96.7 a
11	GALLERY	75	DF	0.5	LB A/A	PRE	B	100.0 a	100.0 a	100.0 a	100.0 a
12	GOAL XL	2.0	L	0.25	LB A/A	PRE	B	96.7 ab	100.0 a	100.0 a	100.0 a
13	IMAGE LC	1.5	LC	0.375	LB A/A	PRE	B	40.0 bcd	91.7 a	100.0 a	100.0 a
14	KERB	50	WP	1.0	LB A/A	PRE	B	0.0 d	41.7 c	100.0 a	100.0 a
15	PENDULUM	60	WG	1.5	LB A/A	PRE	B	98.3 ab	96.7 a	100.0 a	100.0 a
16	PENNANT LIQUID	8.0	EC	2.0	LB A/A	PRE	B	83.3 abc	83.3 ab	98.3 a	100.0 a
17	PLATEAU	2.0	AS	1.0	OZ A/A	PRE	B	40.0 bcd	3.3 d	73.3 b	93.3 a
18	SINBAR	80	WP	0.4	LB A/A	PRE	B	100.0 a	100.0 a	99.7 a	100.0 a
19	STAPLE	85	SP	0.51	OZ A/A	PRE	B	26.7 cd	0.0 d	80.0 ab	91.7 a
20	SURFLAN	4.0	AS	2.0	LB A/A	PRE	B	61.7 abc	50.0 c	99.7 a	100.0 a
21	VELPAR	75	DF	0.5	LB A/A	PRE	B	100.0 a	100.0 a	100.0 a	100.0 a

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Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date	03-07-01	03-07-01	03-07-01	03-07-01
Trt-Eval Interval	27 DA-A	27 DA-A	27 DA-A	27 DA-A
ARM Action Codes	P	P	P	P
Trt Treatment No. Name	Form Form Conc Type Rate	Rate Unit	Grow Appl Stg Code	
22 CHECK	0.0 d	0.0 d	0.0 c	0.0 c
LSD (P=.05)	50.10	30.05	21.02	17.09
Standard Deviation	30.36	18.21	12.74	10.36
CV	54.23	31.14	16.3	12.67
Bartlett's X2	24.895	30.189	42.775	10.717
P(Bartlett's X2)	0.024*	0.001*	0.001*	0.03*
Replicate F	1.929	1.194	1.078	0.978
Replicate Prob(F)	0.1580	0.3130	0.3495	0.3845
Treatment F	4.683	16.631	25.353	37.924
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001

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Rating Data Type						P-CONTRO	P-CONTRO	P-CONTRO	P-CONTRO		
Rating Unit						PERCENT	PERCENT	PERCENT	PERCENT		
Rating Date						03-15-01	03-15-01	03-15-01	03-15-01		
Trt-Eval Interval						35 DA-A	35 DA-A	35 DA-A	35 DA-A		
ARM Action Codes						P	P	P	P		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Grow Unit	Appl Stg	Code				
1	EPTAM	7.0	EC	3.06	LB A/A	PPI	A	66.7 abc	53.3 b	13.3 c	13.3 b
2	PREDICT	78.6	DF	0.98	LB A/A	PPI	A	0.0 d	100.0 a	100.0 a	100.0 a
3	PREFAR	4.0	EC	5.0	LB A/A	PPI	A	0.0 d	0.0 c	0.0 c	0.0 c
4	TREFLAN HFP	4.0	EC	0.5	LB A/A	PPI	A	33.3 cd	0.0 c	0.0 c	0.0 c
5	ALANAP-L	2.0	L	2.0	LB A/A	PRE	B	100.0 a	100.0 a	64.7 b	91.3 a
6	AUTHORITY	75	DF	3.975	OZ A/A	PRE	B	100.0 a	100.0 a	100.0 a	100.0 a
7	COTORAN	4.0	L	1.0	LB A/A	PRE	B	100.0 a	100.0 a	98.3 a	100.0 a
8	CURBIT	3.0	EC	1.125	LB A/A	PRE	B	45.0 a-d	0.0 c	98.0 a	96.3 a
9	DEVRIKOL	50	DF	2.0	LB A/A	PRE	B	80.0 abc	100.0 a	96.7 a	100.0 a
10	FACTOR	65	WG	0.65	LB A/A	PRE	B	41.7 bcd	45.0 b	86.7 a	100.0 a
11	GALLERY	75	DF	0.5	LB A/A	PRE	B	100.0 a	100.0 a	100.0 a	100.0 a
12	GOAL XL	2.0	L	0.25	LB A/A	PRE	B	66.7 abc	100.0 a	100.0 a	100.0 a
13	IMAGE LC	1.5	LC	0.375	LB A/A	PRE	B	48.3 a-d	98.3 a	100.0 a	100.0 a
14	KERB	50	WP	1.0	LB A/A	PRE	B	0.0 d	36.7 b	100.0 a	100.0 a
15	PENDULUM	60	WG	1.5	LB A/A	PRE	B	98.0 a	96.7 a	100.0 a	100.0 a
16	PENNANT LIQUID	8.0	EC	2.0	LB A/A	PRE	B	96.7 ab	96.7 a	100.0 a	100.0 a
17	PLATEAU	2.0	AS	1.0	OZ A/A	PRE	B	53.3 a-d	3.3 c	86.7 a	100.0 a
18	SINBAR	80	WP	0.4	LB A/A	PRE	B	100.0 a	100.0 a	99.7 a	100.0 a
19	STAPLE	85	SP	0.51	OZ A/A	PRE	B	6.7 d	0.0 c	80.0 ab	96.7 a
20	SURFLAN	4.0	AS	2.0	LB A/A	PRE	B	90.0 ab	90.0 a	99.7 a	100.0 a
21	VELPAR	75	DF	0.5	LB A/A	PRE	B	100.0 a	100.0 a	100.0 a	100.0 a

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Rating Data Type	P-CONTRO	P-CONTRO	P-CONTRO	P-CONTRO
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date	03-15-01	03-15-01	03-15-01	03-15-01
Trt-Eval Interval	35 DA-A	35 DA-A	35 DA-A	35 DA-A
ARM Action Codes	P	P	P	P
Trt Treatment No. Name	Form Form Conc Type Rate	Rate Unit	Grow Appl Stg Code	
22 CHECK	0.0 d	0.0 c	0.0 c	0.0 c
LSD (P=.05)	47.77	27.24	17.29	7.72
Standard Deviation	28.95	16.51	10.47	4.68
CV	48.02	25.58	13.37	5.72
Bartlett's X2	23.685	25.982	45.686	3.152
P(Bartlett's X2)	0.014*	0.001*	0.001*	0.369
Replicate F	1.816	0.554	0.779	1.738
Replicate Prob(F)	0.1752	0.5785	0.4654	0.1883
Treatment F	5.535	21.504	38.043	197.595
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001

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Rating Data Type							P-CONTRO	P-CONTRO	P-CONTRO	P-CONTRO	
Rating Unit							PERCENT	PERCENT	PERCENT	PERCENT	
Rating Date							03-21-01	03-21-01	03-21-01	03-21-01	
Trt-Eval Interval							41 DA-A	41 DA-A	41 DA-A	41 DA-A	
ARM Action Codes							P	P	P	P	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code				
1	EPTAM	7.0	EC	3.06	LB A/A	PPI	A	73.3 abc	75.0 ab	25.0 b	45.0 c
2	PREDICT	78.6	DF	0.98	LB A/A	PPI	A	3.3 de	100.0 a	99.7 a	100.0 a
3	PREFAR	4.0	EC	5.0	LB A/A	PPI	A	0.0 e	0.0 d	0.0 c	0.0 d
4	TREFLAN HFP	4.0	EC	0.5	LB A/A	PPI	A	33.3 cde	0.0 d	0.0 c	0.0 d
5	ALANAP-L	2.0	L	2.0	LB A/A	PRE	B	100.0 a	93.3 a	41.3 b	71.7 b
6	AUTHORITY	75	DF	3.975	OZ A/A	PRE	B	100.0 a	100.0 a	100.0 a	100.0 a
7	COTORAN	4.0	L	1.0	LB A/A	PRE	B	100.0 a	100.0 a	100.0 a	100.0 a
8	CURBIT	3.0	EC	1.125	LB A/A	PRE	B	76.7 ab	6.7 cd	93.0 a	88.0 ab
9	DEVRIKOL	50	DF	2.0	LB A/A	PRE	B	93.3 a	99.3 a	99.3 a	100.0 a
10	FACTOR	65	WG	0.65	LB A/A	PRE	B	68.0 abc	95.0 a	88.3 a	93.3 ab
11	GALLERY	75	DF	0.5	LB A/A	PRE	B	100.0 a	100.0 a	100.0 a	100.0 a
12	GOAL XL	2.0	L	0.25	LB A/A	PRE	B	66.7 abc	100.0 a	100.0 a	100.0 a
13	IMAGE LC	1.5	LC	0.375	LB A/A	PRE	B	45.0 bcd	96.7 a	100.0 a	100.0 a
14	KERB	50	WP	1.0	LB A/A	PRE	B	11.7 de	60.0 b	99.7 a	100.0 a
15	PENDULUM	60	WG	1.5	LB A/A	PRE	B	99.7 a	99.7 a	99.0 a	100.0 a
16	PENNANT LIQUID	8.0	EC	2.0	LB A/A	PRE	B	98.3 a	99.7 a	99.7 a	100.0 a
17	PLATEAU	2.0	AS	1.0	OZ A/A	PRE	B	83.3 ab	26.7 c	90.0 a	96.7 ab
18	SINBAR	80	WP	0.4	LB A/A	PRE	B	100.0 a	100.0 a	100.0 a	100.0 a
19	STAPLE	85	SP	0.51	OZ A/A	PRE	B	6.7 de	6.7 cd	86.7 a	90.0 ab
20	SURFLAN	4.0	AS	2.0	LB A/A	PRE	B	95.0 a	96.7 a	99.7 a	100.0 a
21	VELPAR	75	DF	0.5	LB A/A	PRE	B	100.0 a	100.0 a	100.0 a	100.0 a

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Rating Data Type	P-CONTRO	P-CONTRO	P-CONTRO	P-CONTRO
Rating Unit	PERCENT	PERCENT	PERCENT	PERCENT
Rating Date	03-21-01	03-21-01	03-21-01	03-21-01
Trt-Eval Interval	41 DA-A	41 DA-A	41 DA-A	41 DA-A
ARM Action Codes	P	P	P	P
Trt Treatment No. Name	Form Form Conc Type Rate	Rate Unit	Grow Appl Stg Code	
22 CHECK	0.0 e	0.0 d	0.0 c	0.0 d
LSD (P=.05)	38.57	21.24	19.67	23.30
Standard Deviation	23.38	12.87	11.92	14.12
CV	35.36	18.2	15.24	17.4
Bartlett's X2	44.66	63.825	80.639	16.367
P(Bartlett's X2)	0.001*	0.001*	0.001*	0.006*
Replicate F	1.393	1.648	1.151	1.186
Replicate Prob(F)	0.2595	0.2045	0.3260	0.3155
Treatment F	8.313	31.248	29.263	18.840
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

North Carolina State University

**WINTER ANNUAL BROADLEAF WEED CONTROL WITH PREPLANT INCORPORATED AND
PREEMERGENCE HERBICIDES (RUN #2)**

Trial ID: 01-GH4

Study Dir.: F.H. YELVERTON

Location: NCSU GREENHOUSE

Investigator: Crop Science Department

Trial Comments

11-03-00: POTTED RATIO OF 25 SCOOPS SANDY LOAM, 10 SCOOPS SAND, 0.33 BAG METRO-MIX AND SET IN GREENHOUSE

- DID NOT BEGIN WATERING AT THIS TIME

11-13-00: IRRIGATION TIMER SET FOR 6:00 AM, 11:00 AM AND 4:00 PM AT 5 MINUTE INTERVALS

- GREENHOUSE ENVIRONMENT ADJUSTED FOR FALL CONDITIONS (LIGHTS FROM 6:30 - 8:00 PM)

02-01-01: IRRIGATION TIMER SET FOR 6:00 AM AND 1:00 PM EACH DAY AT 5 MINUTE INTERVALS

02-07-01: SEEDED ALL PRE POTS AND LIGHTLY WATERED

02-08-01: CALIBRATED SPRAY CHAMBER FOR 1.5 MPH (6 FT IN 2.73 SEC) AND 20 GPA (87 ML IN 15 SEC) USING TEEJET XR 8001EVS NOZZLE 12 INCHES ABOVE SOIL SURFACE

- APPLIED PPI TREATMENTS, INCORPORATED IN PLASTIC BAGS, POTTED, SET IN GREENHOUSE, HAND-WATERED, SEEDED

- APPLIED PRE TREATMENTS TO SEEDED POTS, SET IN GREENHOUSE, HAND-WATERED

- WATER CUT OFF IN GREENHOUSE UNTIL 1:00 PM ON 02-09-01

02-15-01: WEEDS JUST BEGINNING TO CRACK THE SURFACE (GERCA NOT PRESENT AT THIS TIME)

02-22-01: WEED GROWTH STAGES

GERCA: COTYLEDON, 0.25 - 0.5 INCH

SONAS: COTYLEDON - 1 LEAF, 0.25 INCH

LEPVI: COTYLEDON - 2 LEAVES, 0.25 INCH

CAPBP: 2 LEAVES, 0.25 INCH

03-01-01: 1ST EVALUATION AND 1ST FERTILIZATION

GERCA: COTYLEDON - 1 LEAF, 0.5 - 0.75 INCH

SONAS: COTYLEDON - 1 LEAF, 0.5 INCH

LEPVI: 2 - 3 LEAVES, 0.5 INCH

CAPBP: 2 - 4 LEAVES, 0.5 INCH

03-07-01: 2ND EVALUATION AND 2ND FERTILIZATION

GERCA: 1 - 2 LEAVES, 1 INCH

SONAS: 1 - 2 LEAVES, 0.5 INCH

LEPVI: 3 - 4 LEAVES, 0.5 INCH

CAPBP: 4 - 6 LEAVES, 0.5 INCH

03-15-01: 3RD EVALUATION AND 3RD FERTILIZATION

03-21-01: 4TH AND FINAL EVALUATION