Weed Control

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Fall Produce Pest Management Meeting

Yuma Civic and Convention Center

1440 W. Desert Hills Drive

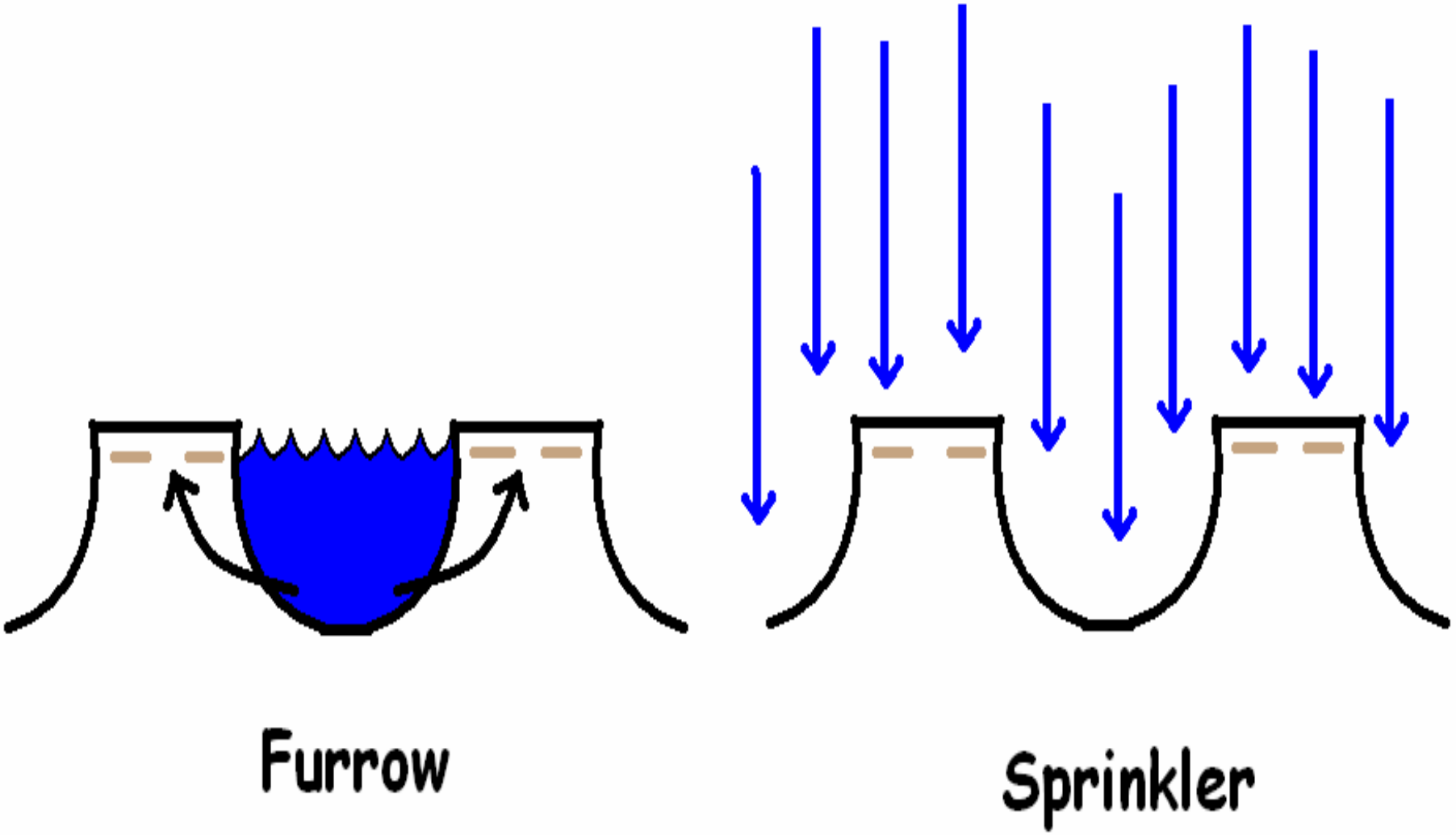
Yuma, Arizona

Balan	Kerb	Prefar	
●	○	●	Summer Grasses
●	○	●	Pigweed
●	●	●	Purslane
◗	◗	○	Groundcherry
●	●	◗	Goosefoot
●	●	◗	Lambsquarters
○	●	○	London rocket
○	●	○	Shepardspurse
○	○	○	Sowthistle
●	●	◗	Knotweed
◗	●	○	Cereals
◗	●	○	Wildoat
●	●	●	Canarygrass
●	●	●	Bluegrass

● Excellent ◗ Partial ○ None

Mode of Action Comparison

	Prefar	Kerb	Balan
Movement in the soil	Little	Moves with large volumes of water	Little
Movement in the plant	Little	Absorbed by roots & moved upward	Little
Cell Division	Inhibited	Disrupted	Disrupted
Absorbed into & effect	Roots only	Roots & shoots	Roots & shoots
Lateral roots are	Absent	Clubbed	Clubbed

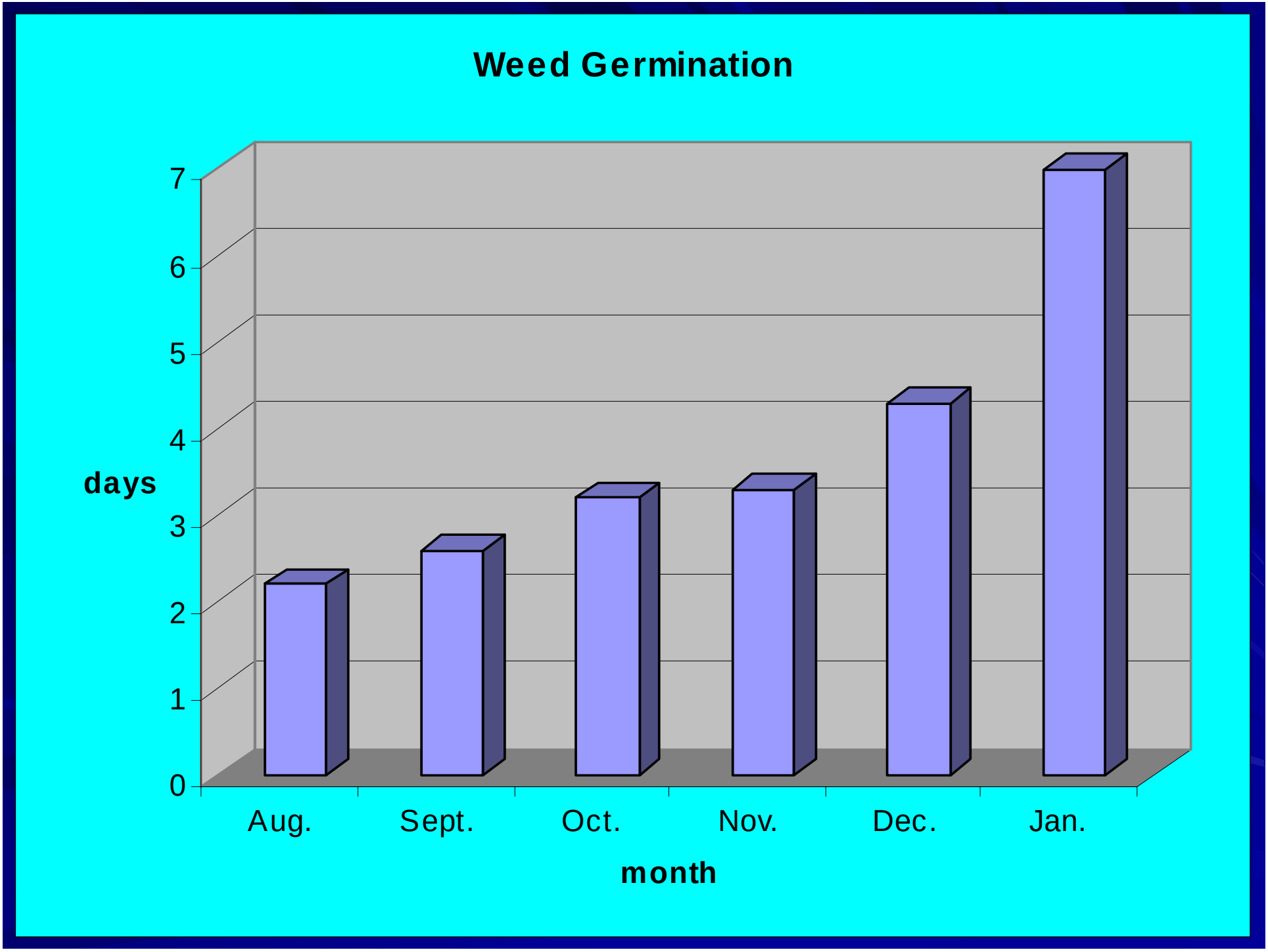

Furrow
Sprinkler

Sprinklers

Furrow

Kerb
Delayed Application

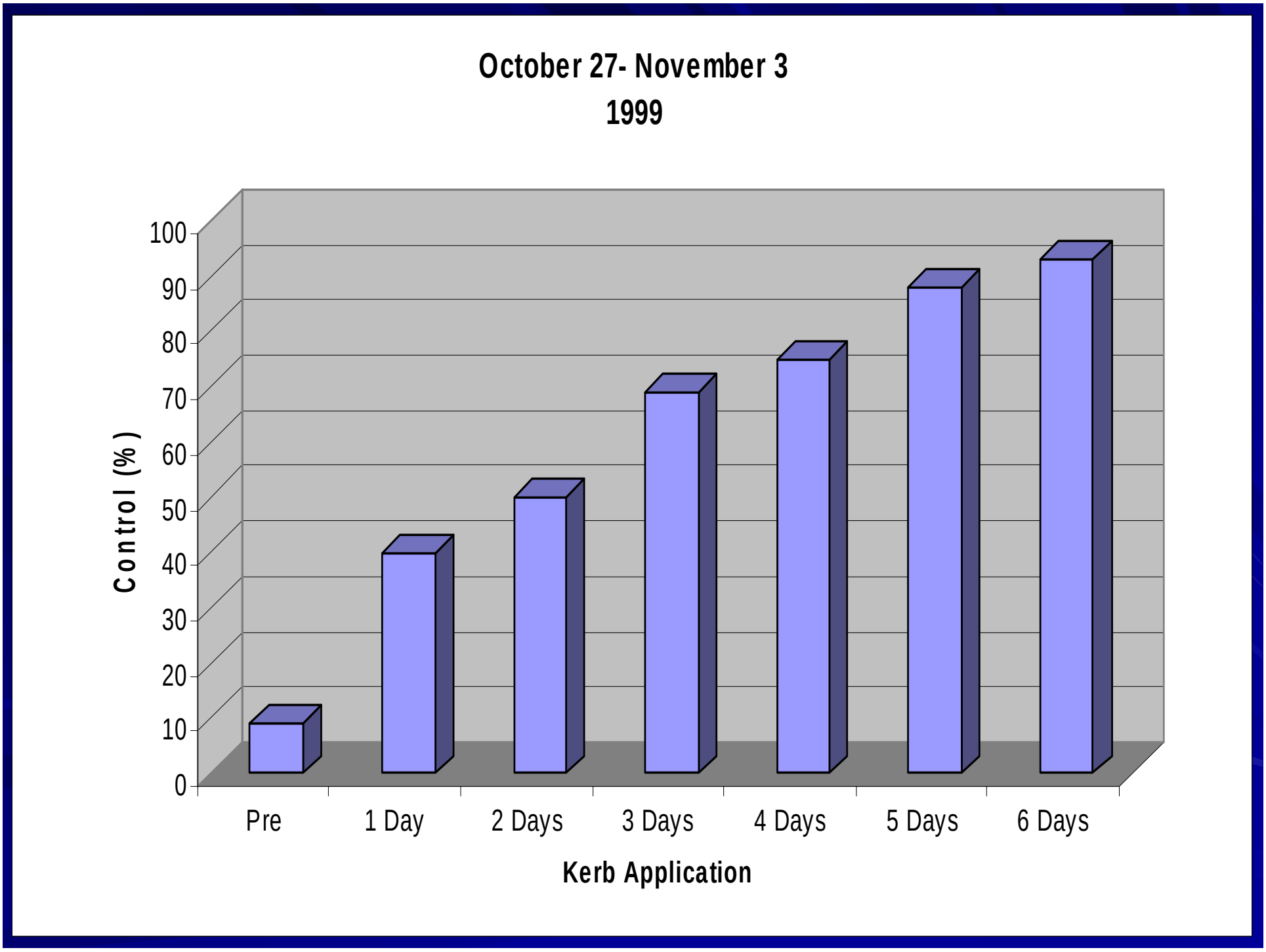
Apply after sprinklers have started to avoid leaching of the herbicide before weeds germinate

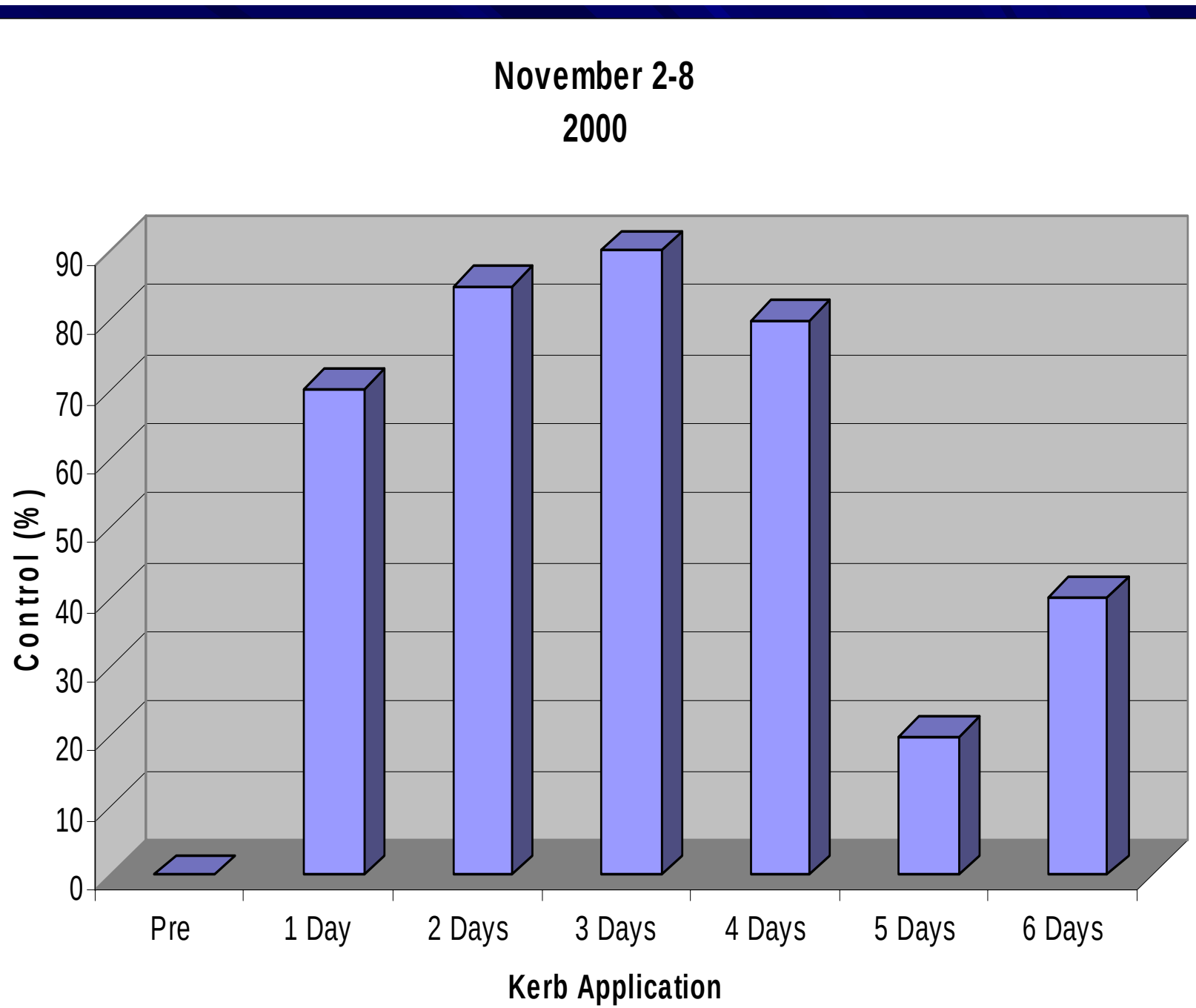

Weed Germination
7
6
5
4
3
2
1
0
days
Aug.
Sept.
Oct.
Nov.
Dec.
Jan.
month

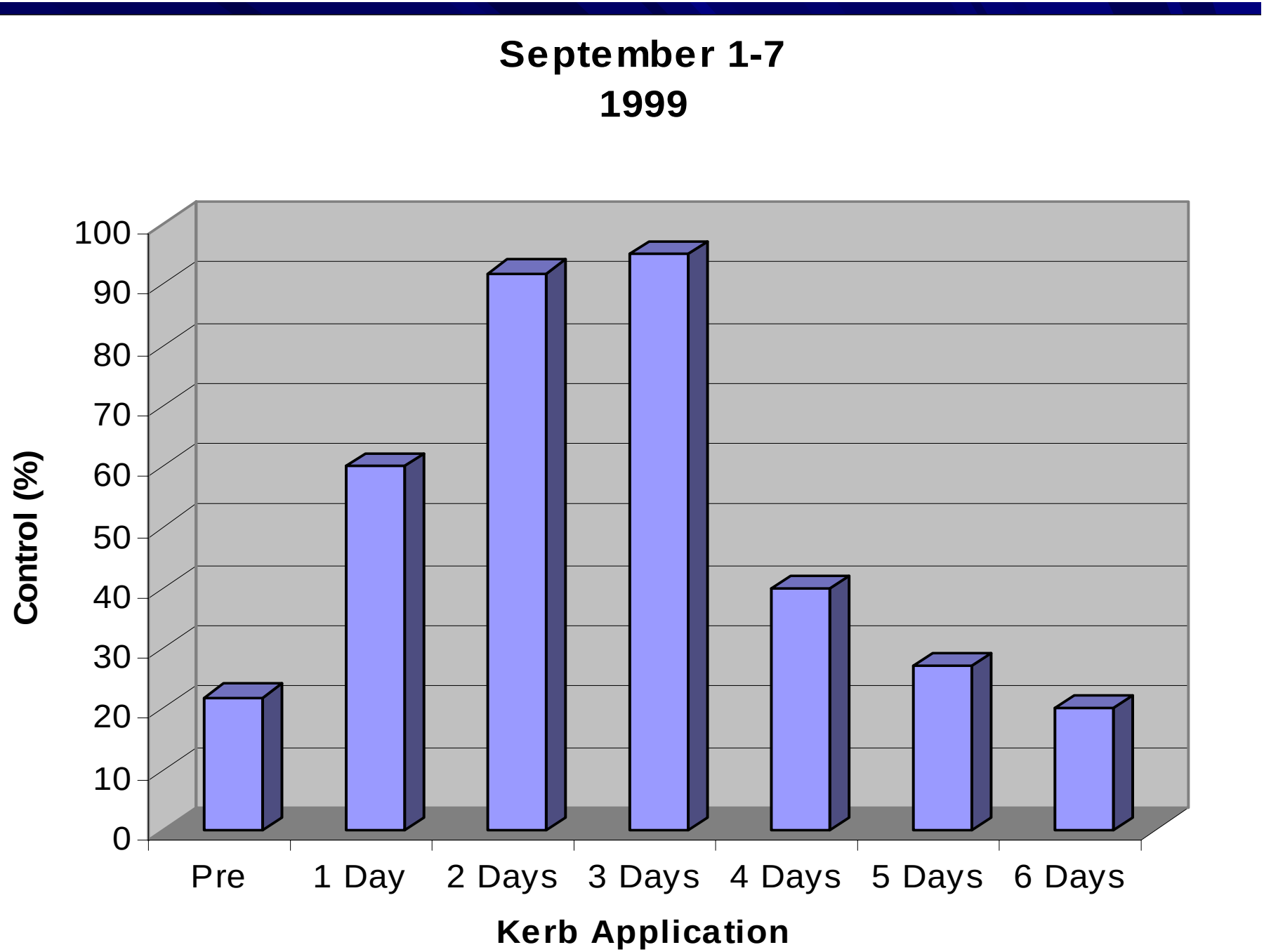

Applied 5 days
after
sprinklers started

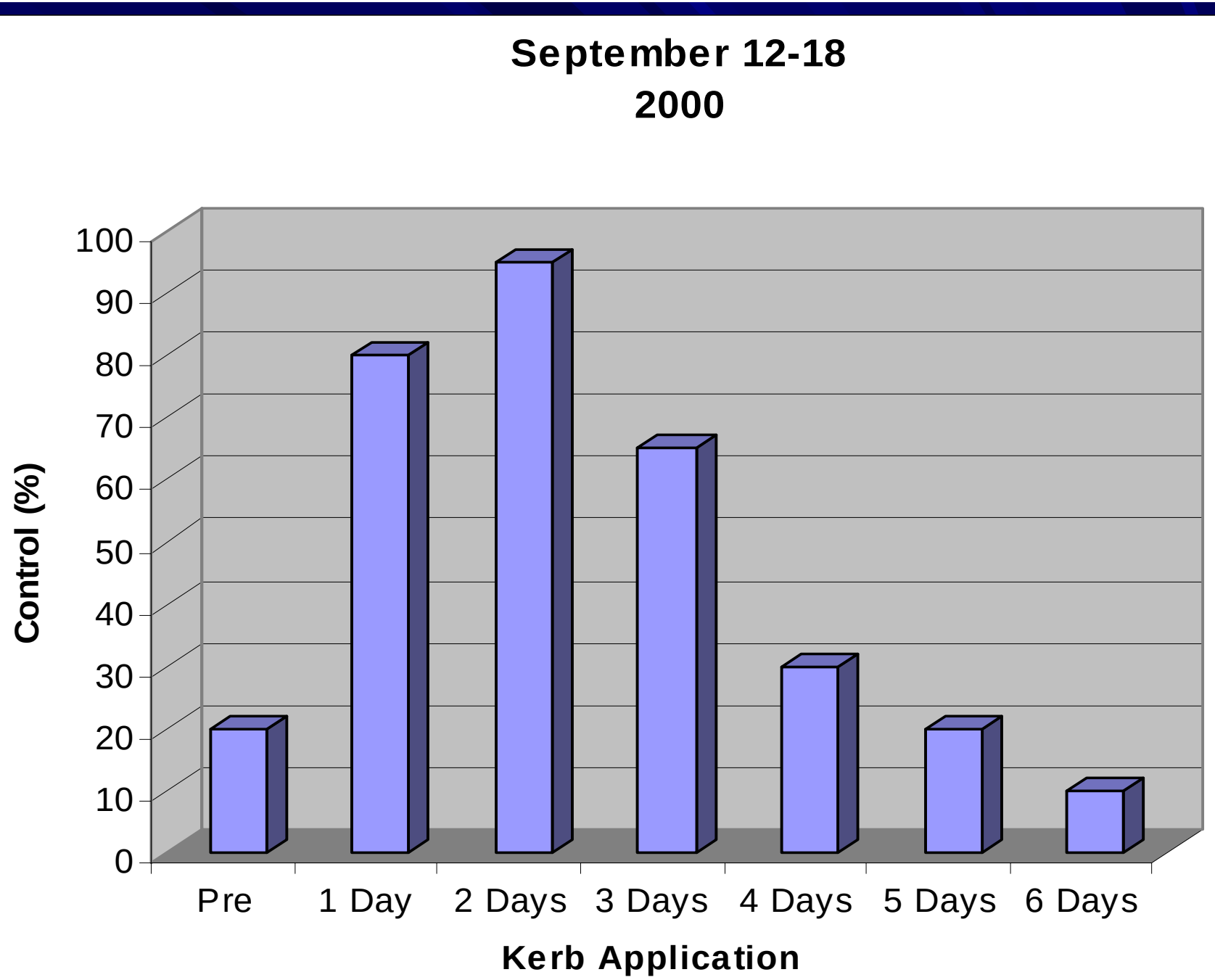

3 DAYS

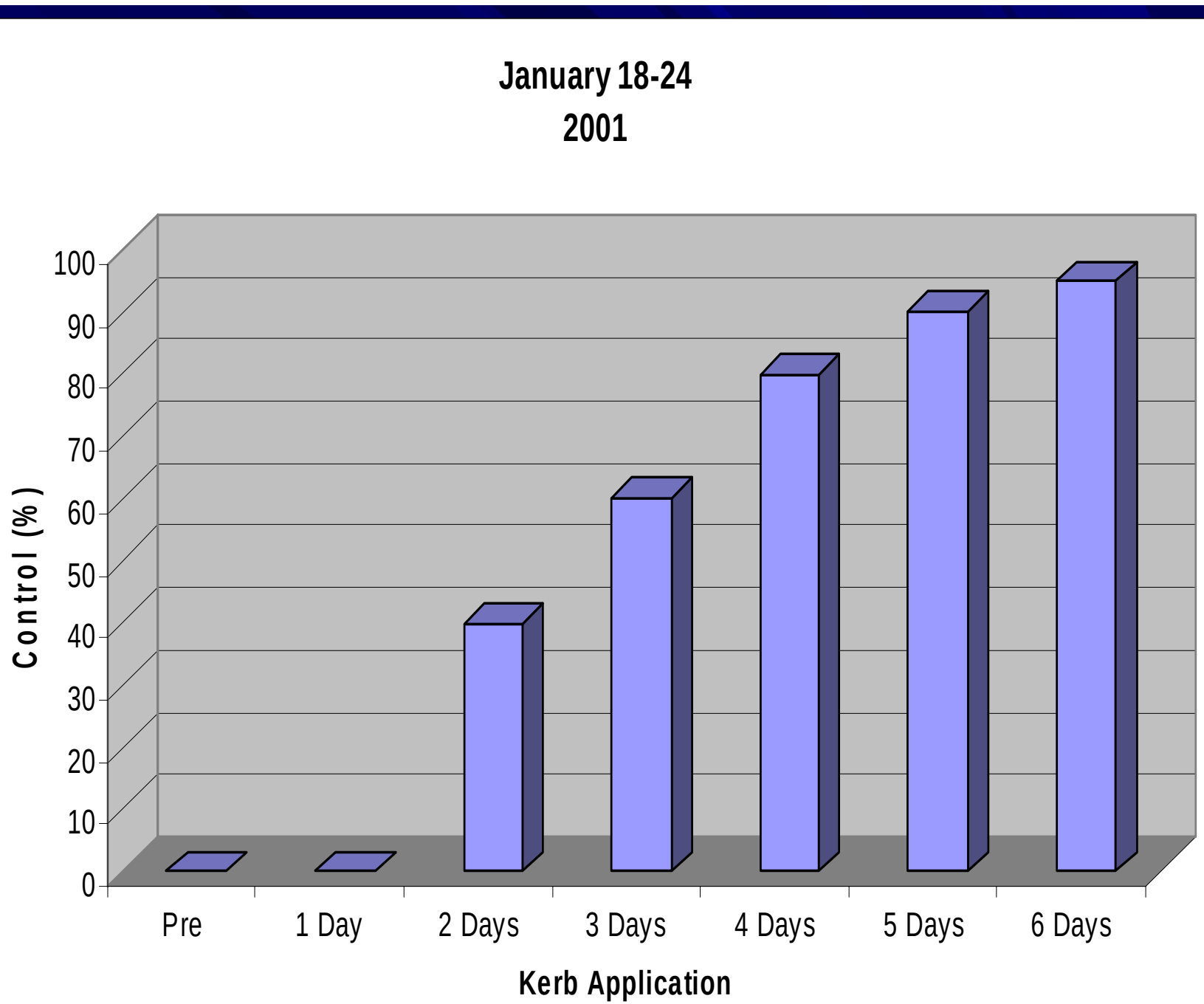

Pre-sprinklers
6 Days


October 27- November 3
1999
Control (%)
100
90
80
70
60
50
40
30
20
10
0
Pre
1 Day
2 Days
3 Days
4 Days
5 Days
6 Days
Kerb Application


November 2-8
2000
Control (%)
0
10
20
30
40
50
60
70
80
90
Pre
1 Day
2 Days
3 Days
4 Days
5 Days
6 Days
Kerb Application


September 1-7
1999
Control (%)
100
90
80
70
60
50
40
30
20
10
0
Pre
1 Day
2 Days
3 Days
4 Days
5 Days
6 Days
Kerb Application


September 12-18
2000
Control (%)
100
90
80
70
60
50
40
30
20
10
0
Pre
1 Day
2 Days
3 Days
4 Days
5 Days
6 Days
Kerb Application


January 18-24
2001
Control (%)
100
90
80
70
60
50
40
30
20
10
0
Pre
1 Day
2 Days
3 Days
4 Days
5 Days
6 Days
Kerb Application

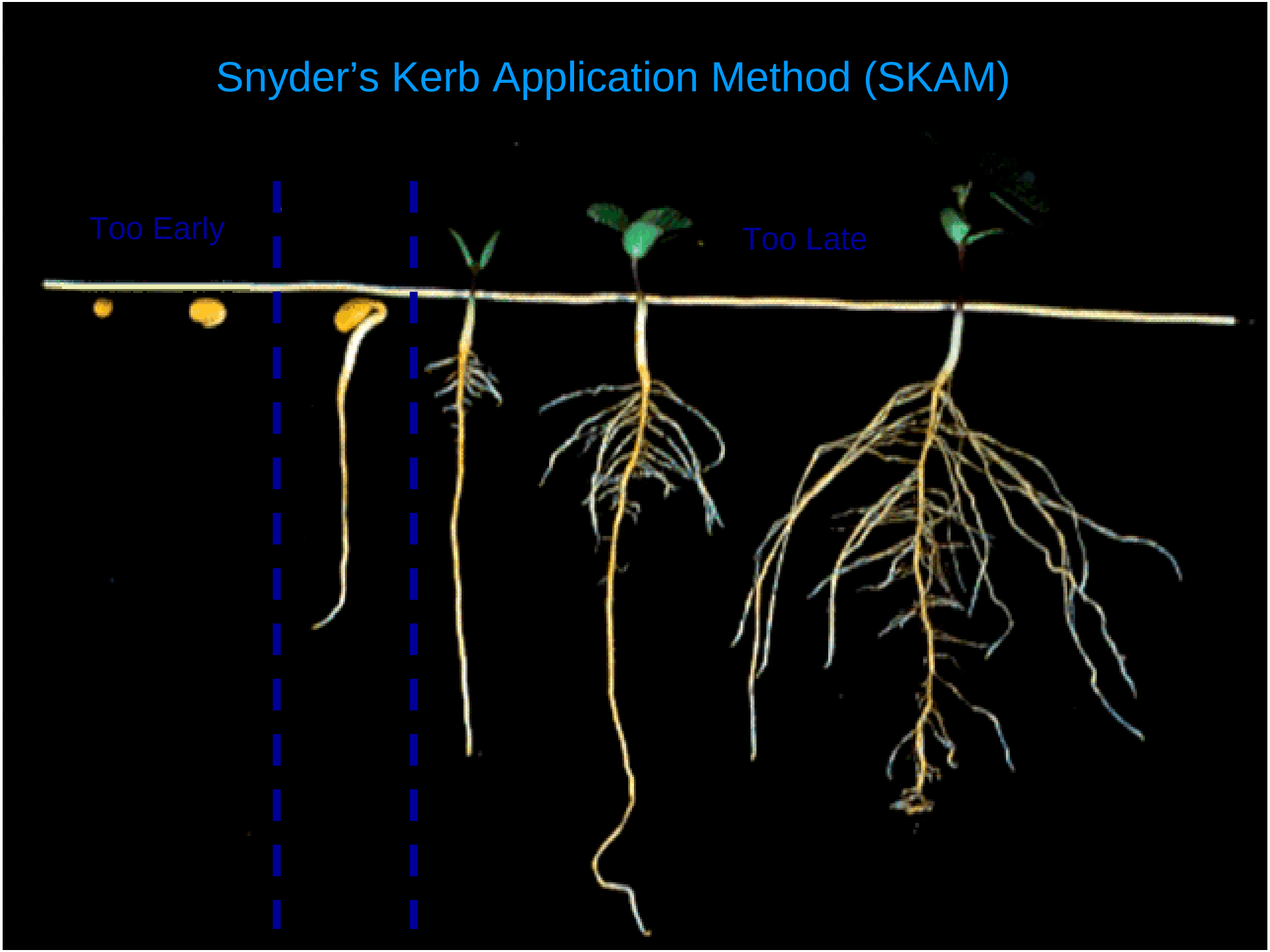
Factors Effecting Weed Germination

- Species
- Depth
- Environmental Conditions
- Irrigation Type and Amount
- Soil Type
- Other

Timing

- Early (Sept. 1 to Oct. 15) 1-3 days
- Mid. (Oct. 15 to Dec. 15) 3-6 days
- Late (Dec. 15 to Jan.) 5-6 days

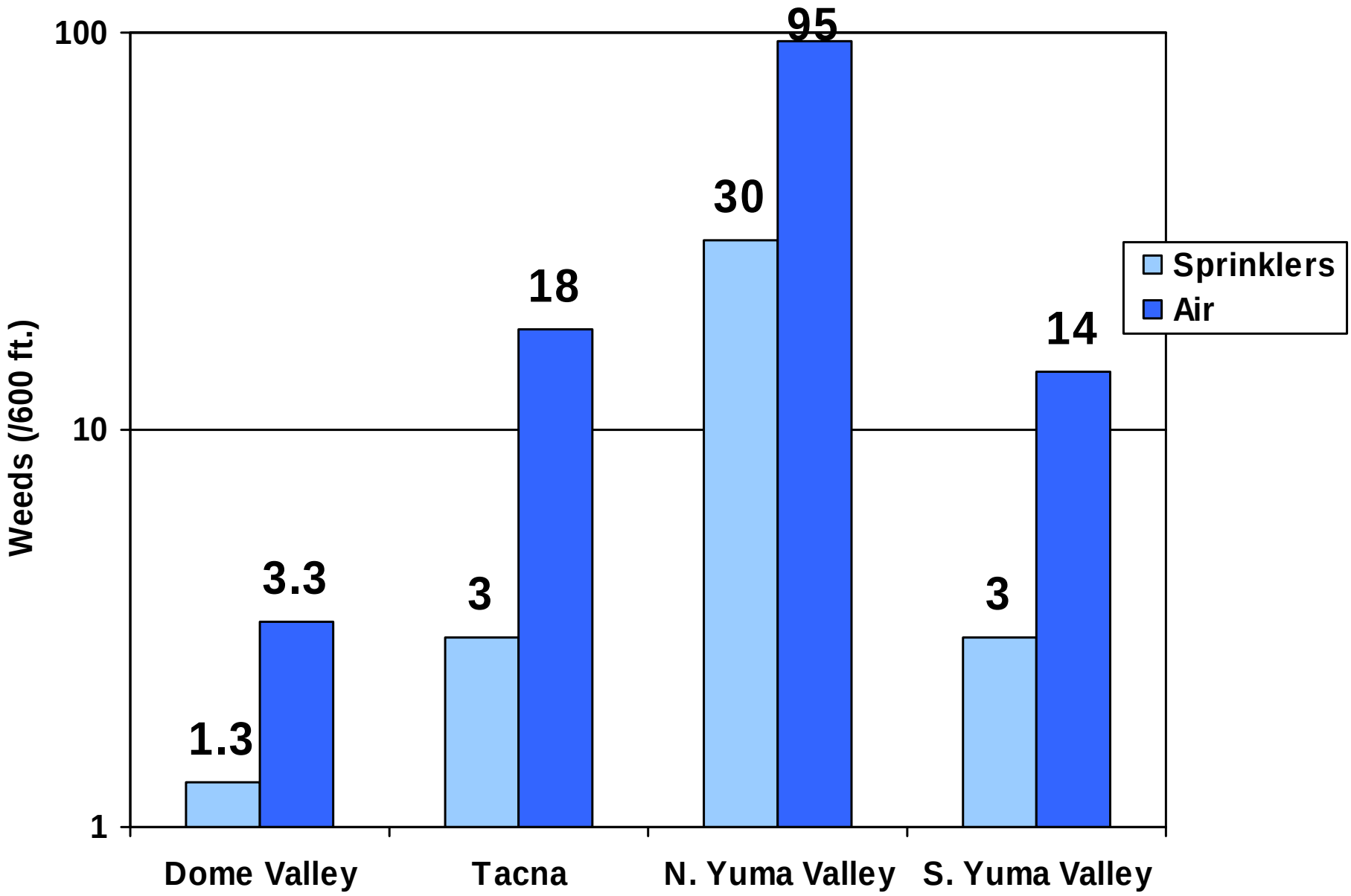
Snyder's Kerb Application Method (SKAM)

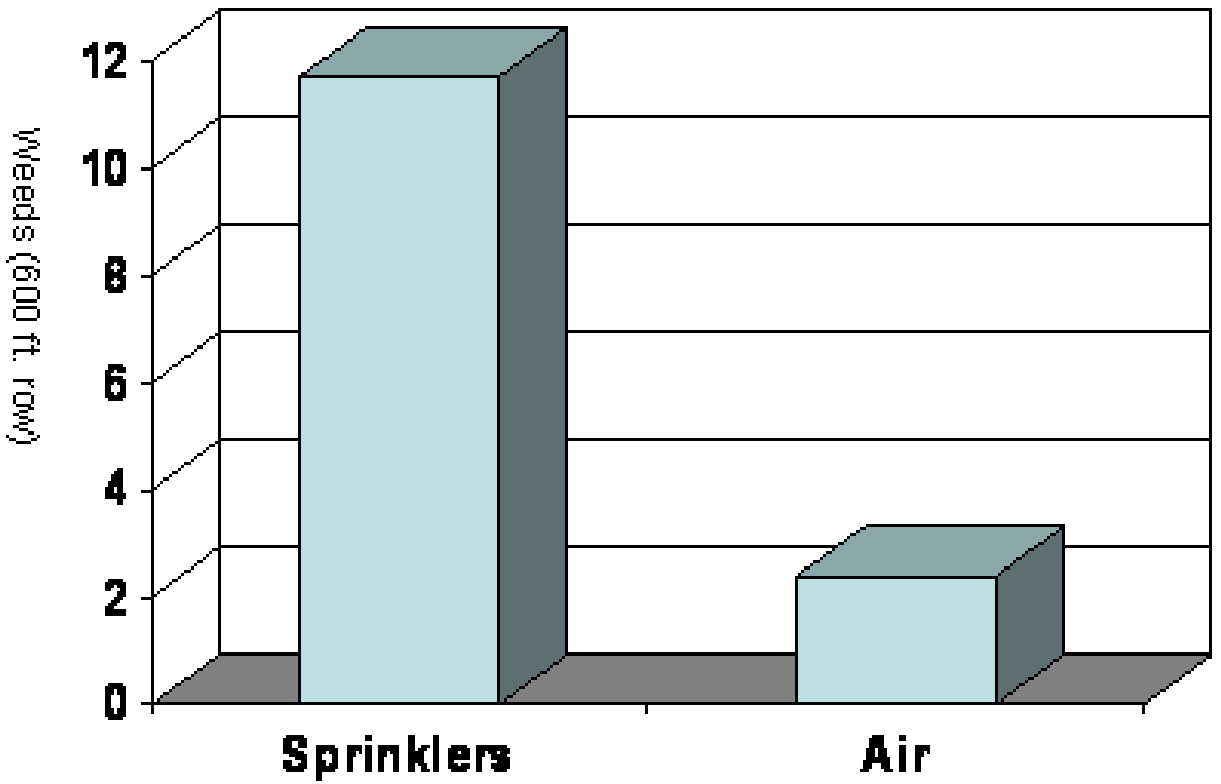


Aerial vs. Chemigation

Kerb
Chemigation Vs. Aerial Tests

Location	Plot Size (ac)	Rate (lb./ac)	Date	Applied (days After)	Weeds
Dome Valley	18	1.3	12-11	4	Goosefoot
Tacna	13	1.3	12-31	5	Shepardspurse
N. Yuma Valley	17	1.3	11-19	3	Shepardspurse
S. Yuma Valley	11	1.5	6-25	1	Purslane


100
10
1
Weeds (/600 ft.)
95
30
18
14
3.3
3
3
1.3
Sprinklers
Air
Dome Valley
Tacna
N. Yuma Valley
S. Yuma Valley


Weeds (600 ft. row)
12
10
8
6
4
2
0
Sprinklers
Air


Kerb Chemigation

Applications to Western Growers Assn.

- 21000 acres
- 12 operations
- 130 acres-smallest
- 7000 acres-largest

Kerb Chemigation Applicators







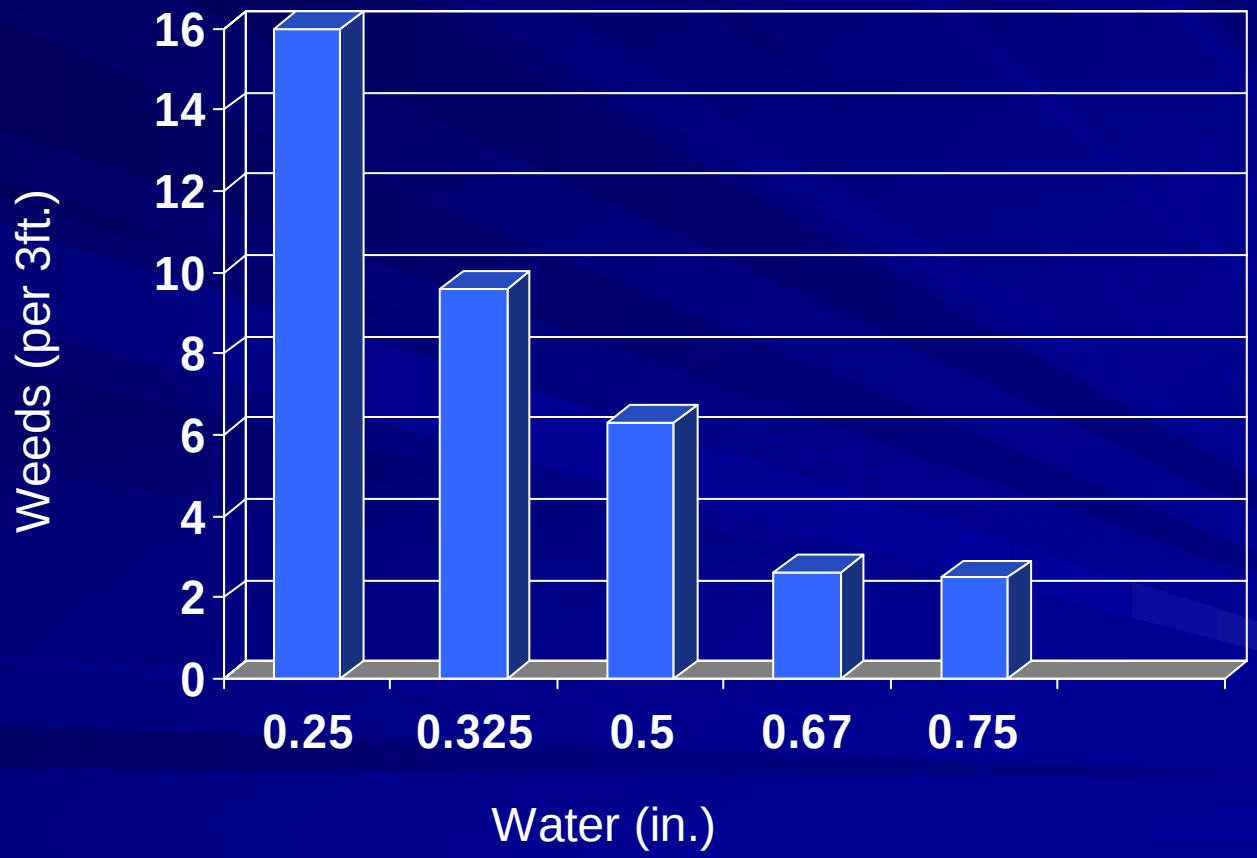

Kerb Chemigation Guidelines

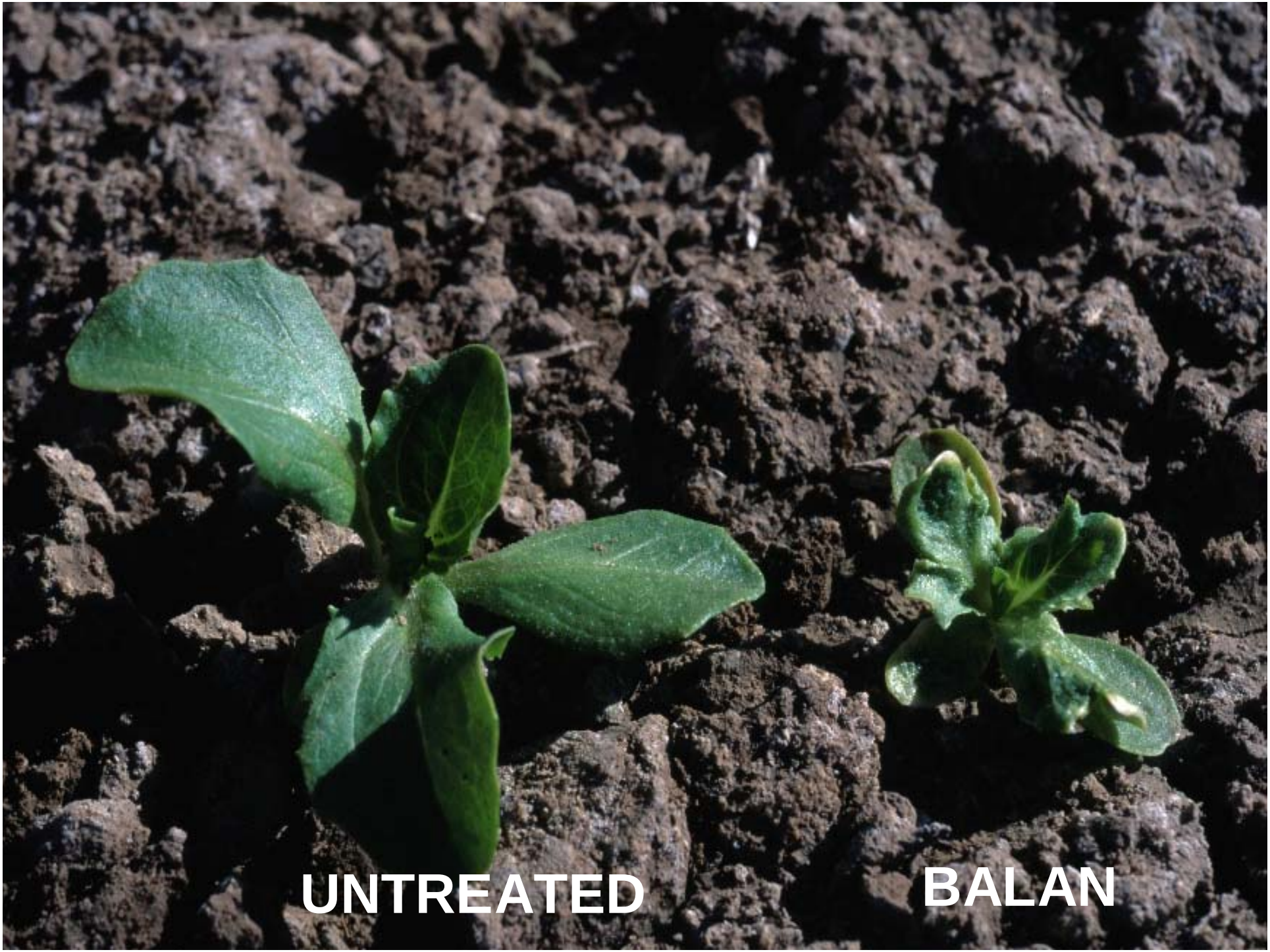
- Rate: 1 to 2 lbs.
- Mixing: 3 gallons of water per pound
- Moisture: Min. 0.75in.
- Duration: 1 to 2 hours


Stauffer
Prefar
4-E
KEEP OUT OF REACH OF CHILDREN
CAUTION
5 GAL. NET 18.9 L
Prefar
4-E
Selective Herbicide
emulsifiable liquid for
control of annual grasses
and broadleaf weeds
Keep Out of Reach of Children
CAUTION
5 GAL. NET 18.9L
Prefar 4-E
Selective Herbicide
Emulsifiable Liquid for Control of
Annual Grasses and Broadleaf Weeds
KEEP OUT OF REACH OF CHILDREN
CAUTION
Gowan
Prefar 6-E
Selective Herbicide
Emulsifiable Liquid for Control of
Annual Grasses and Broadleaf Weeds
KEEP OUT OF REACH OF CHILDREN
CAUTION
Gowan

		Best Activity	**Worst Activity**
Prefar		Sprinklers High Water Volume	Furrow Low Water Volume
Kerb		Furrow Low Water Volume	Sprinklers High Water Volume

Prefar- Water interaction




UNTREATED
BALAN


Goal 2XL
Post - 2 pts.


Goal 4E
Post - 1 pt.


Goal 2XL
Post - 2 pts.


Goal 4E
Post - 1 pt.


1 pint


Dacthal
(10 lbs.)

Dacthal

6F

75W