

PROJECT TITLE: Banvel Study on Spring Wheat

PROJECT LEADERS: Bob Stougaard and Todd Keener, NWARC, Kalispell, MT

OBJECTIVE: To evaluate Banvel formulations in combination with low rates of Harmony Extra for broadleaf weed control in spring wheat.

RESULTS: All treatments demonstrated excellent crop tolerance. Weed pressure was heavy and consisted of lambsquarters and field pennycress. Both Banvel formulations afforded the same degree of weed control and wheat yield. The addition of Harmony Extra greatly improved weed control and grain yield compared to Banvel alone. Herbicide rate did not affect weed control or yield with respect to the tank-mix combinations.

SUMMARY: Weed competition reduced spring wheat yields by one-half. Reduced rates of Harmony Extra in combination with Banvel provided almost 100 percent weed control.

FUTURE PLANS:

Continue to evaluate the effect of weed height and reduced rates for broadleaf control in small grains.

Montana State University

BANVEL STUDY ON SPRING BARLEY

Project Code:94-BSB-R4
Cooperator :WAYNE BELLES

Location :KALISPELL, MT R4
By:Bob Stougaard

Weed/Crop Code	LMQTRS	LMQTRRS	PENNYCRS	PENNYCS	WHEAT	WHEAT
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CRP INJ	YIELD
Rating Unit	%	%	%	%	%	BU/A
Rating Date	6-6-94	8-7-94	6-6-94	8-7-94	6-6-94	8-8-94

Trt No	Treatment Name	Form	Fm	Rate	Unit	Grow Stg	Appl Code	LMQTRS CONTROL	LMQTRRS CONTROL	PENNYCRS CONTROL	PENNYCS CONTROL	WHEAT CRP INJ	WHEAT YIELD BU/A
1	UNTREATED							0.0	0.0	0.0	0.0	0.0	30.2
2	BANVEL SGF	2	SL	.0935	lb ai/A	POST	A	68.3	82.3	71.7	50.0	0.0	41.1
3	BANVEL SGF	2	SL	.125	lb ai/A	POST	A	78.3	92.7	78.3	66.0	0.0	47.1
4	SAN 845H	70	WG	.0935	lb ai/A	POST	A	71.7	78.7	73.3	53.3	0.0	39.9
5	SAN 845H	70	WG	.125	lb ai/A	POST	A	75.0	91.0	81.7	88.3	0.0	50.0
6	BANVEL SGF	2	SL	.0935	lb ai/A	POST	A	88.3	100.0	100.0	98.3	0.0	61.7
6	HARMONY EXTRA	75	DF	.15	oz pr/A	POST	A						
6	ACTIVATOR 90	1	EC	.25	% v/v	POST	A						
7	BANVEL SGF	2	SL	.0935	lb ai/A	POST	A	96.7	100.0	100.0	93.3	3.3	58.5
7	HARMONY EXTRA	75	DF	.3000	oz pr/A	POST	A						
7	ACTIVATOR 90	1	EC	.25	% v/v	POST	A						
8	BANVEL SGF	2	SL	.125	lb ai/A	POST	A	98.3	99.7	98.0	96.7	0.0	56.0
8	HARMONY EXTRA	75	DF	.15	oz pr/A	POST	A						
8	ACTIVATOR 90	1	EC	.25	% v/v	POST	A						
9	BANVEL SGF	2	SL	.125	lb ai/A	POST	A	96.7	99.7	100.0	100.0	0.0	63.5
9	HARMONY EXTRA	75	DF	.3000	oz pr/A	POST	A						
9	ACTIVATOR 90	1	EC	.25	% v/v	POST	A						
10	SAN 845H	70	WG	.0935	lb ai/A	POST	A	98.3	100.0	97.7	96.7	0.0	61.9
10	HARMONY EXTRA	75	DF	.15	oz pr/A	POST	A						
10	ACTIVATOR 90	1	EC	.25	% v/v	POST	A						
11	SAN 845H	70	WG	.0935	lb ai/A	POST	A	100.0	99.7	99.7	96.7	0.0	61.2
11	HARMONY EXTRA	75	DF	.30	oz pr/A	POST	A						
11	ACTIVATOR 90	1	EC	.25	% v/v	POST	A						
12	SAN 845H	70	WG	.125	lb ai/A	POST	A	96.7	100.0	96.7	100.0	0.0	52.6
12	HARMONY EXTRA	75	DF	.15	oz pr/A	POST	A						
12	ACTIVATOR 90	1	EC	.25	% v/v	POST	A						
13	SAN 845H	70	WG	.125	lb ai/A	POST	A	100.0	100.0	100.0	100.0	6.7	54.6
13	HARMONY EXTRA	75	DF	.30	oz pr/A	POST	A						
13	ACTIVATOR 90	1	EC	.25	% v/v	POST	A						

LSD (.05) =	19.7	14.1	19.3	22.2	3.7	11.9
Standard Dev. =	11.6621	8.34998	11.4263	13.1464	2.21687	7.06885
CV =	14.19	9.49	13.54	16.44	288.19	13.55
Block F	4.544	3.590	3.742	2.473	1.565	1.735
Block Prob(F)	0.0212	0.0432	0.0385	0.1055	0.2296	0.1978
Treatment F	16.445	32.351	17.559	15.657	2.435	6.221
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001	0.0307	0.0001

- End of Report -

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Cooperator :WAYNE BELLES

Location :KALISPELL, MT R4
By:Bob Stougaard

Site Description

Crop: SPRING WHEAT Variety: NEWANA Planting Date: 4-15-94
Planting Method: PRESSDRILL Rate, Unit: 60 , LB/A Depth, Unit: 1.5 , "
Perennial Age, Unit: , Row Spacing, Unit: 6 , "
Soil Temp., Unit: , Soil Moisture: Emergence Date:

Plot Width/Area, Unit: 10 , FT Plot Length, Unit: 15 , FT Reps: 3
Site Type: Seed Bed Desc.: Ground Cover:
Tillage Type: Study Design: RCB
Field Preparation/Plot Maintenance: FALL PLOW, SPRING DISC AND VIBRA-SHANK,
THEN CULTIPACK PRIOR TO SEEDING

Soil Description

Texture: SILT LOAM % OM: 2.8 % Sand: 40 % Silt: 50 % Clay: 10
pH: 6.2 CEC: Soil Name: CRESTON SL Fertility Level:

Moisture Conditions

Table with 8 columns: Moisture On, Date, Amount, Unit, Type, Date, Amount, Unit, Type. Rows 1-7.

Overall Moisture Conditions:

Application Information

Table with 7 columns: A, B, C, D, E, F. Rows for Application Date, Time of Day, Application Method, Application Timing, Air Temp., % Relative Humidity, Wind Velocity, Dew Presence (Y/N), Water Hardness, Soil Temp., Soil Moisture, % Cloud Cover.

Table with 7 columns: Weed Species, Weed Stage, Density at Application. Rows for WHEAT, LMQTR, PENNYCRESS.

Application Equipment

Table with 10 columns: Sprayer Type, Speed MPH, Nozzle Type, Nozzle Size, Nozzle Height, Nozzle Spacing, Boom Width, GPA, Carrier, PSI. Rows A. BACKPACK, B.

Fertilized on 4-18-94 with 200 LB/A of 26/14/0.