

PROJECT TITLE: Barley Tolerance to Banvel Tankmix Treatments
PROJECT LEADERS: Bob Stougaard and Doug Holen, NWARC, Kalispell, MT.

OBJECTIVE:

To evaluate potential barley injury and broadleaf weed control with Banvel combinations.

RESULTS:

Treatments including Banvel were generally more injurious than those containing SAN 1418H. Also, those treatments which included NIS caused more injury than similar treatments with UAN 28%. Plant recovery was complete with no significant visible injury two months prior to harvest and no yield losses were observed.

SUMMARY:

Early season herbicide damage to barley plants did not result in reduced yields. Due to light weed pressure, herbicide effectiveness comparisons were not made.

FUTURE PLANS:

Continued evaluation of broadleaf herbicides on small grains for their ability to control weeds while minimizing detrimental effects on crop.

BARLEY TOLERANCE TO BANVEL TANKMIX TREATMENTS

Trt No	Treatment Name	Form Amt	Fm Ds	Rate Rate	Rate Unit	BARLEY INJURY PERCENT 6-10-96	BARLEY INJURY PERCENT 6-25-96	BARLEY YIELD BU/ACRE 8-30-96
1	UNTREAT CHECK					0.0	0.0	75.6
2	BANVEL	4	SL	.093	lb ai/A	24.0	0.0	82.2
2	SAN 1418H	50	DF	.015	lb ai/A			
2	UAN 28%	4	L	2.00	lb ai/A			
3	BANVEL	4	SL	.093	lb ai/A	38.3	3.3	74.3
3	SAN 1418H	50	DF	.015	lb ai/A			
3	NIS	1	EC	.25	gal pr/100gal			
4	BANVEL	4	SL	.093	lb ai/A	29.0	3.3	77.8
4	SAN 1418H	50	DF	.031	lb ai/A			
4	UAN 28%	4	L	2.00	lb ai/A			
5	BANVEL	4	SL	.093	lb ai/A	26.7	1.7	89.1
5	SAN 1418H	50	DF	.015	lb ai/A			
5	HARMONY EXTRA	75	WG	.0075	lb ai/A			
5	UAN 28%	4	L	2.00	lb ai/A			
6	BANVEL	4	SL	.093	lb ai/A	47.3	0.0	86.2
6	SAN 1418H	50	DF	.015	lb ai/A			
6	HARMONY EXTRA	75	WG	.0075	lb ai/A			
6	NIS	1	EC	.25	gal pr/100gal			
7	SAN 1418H	50	DF	.015	lb ai/A	25.7	5.0	85.0
7	UAN 28%	4	L	2.00	lb ai/A			
8	SAN 1418H	50	DF	.031	lb ai/A	20.0	0.0	92.0
8	UAN 28%	4	L	2.00	lb ai/A			
9	SAN 1418H	50	DF	.015	lb ai/A	27.0	3.3	85.0
9	NIS	1	EC	.25	gal pr/100gal			
10	SAN 1418H	50	DF	.015	lb ai/A	16.7	0.0	91.1
10	2,4-D-DMASALT	3.8	SL	.25	lb ai/A			
10	UAN 28%	4	L	2.00	lb ai/A			
11	BANVEL	4	SL	.093	lb ai/A	32.3	3.3	84.9
11	2,4-D-DMASALT	3.8	SL	.25	lb ai/A			
11	SAN 1418H	50	DF	.015	lb ai/A			
11	UAN 28%	4	L	2.00	lb ai/A			

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BARLEY TOLERANCE TO BANVEL TANKMIX TREATMENTS

Trt No	Treatment Name	Form Fm		Rate		BARLEY INJURY	BARLEY INJURY	BARLEY YIELD
		Amt	Ds	Rate	Unit	6-10-96	6-25-96	8-30-96
12	SAN 1418H	50	DF	.015	lb ai/A	21.7	3.3	92.4
12	HARMONY EXTRA	75	WG	.0075	lb ai/A			
12	UAN 28%	4	L	2.00	lb ai/A			
13	BANVEL	4	SL	.093	lb ai/A	38.7	1.7	77.4
13	2,4-D-DMASALT	3.8	SL	.38	lb ai/A			
13	NIS	1	EC	.25	gal pr/100gal			
14	BANVEL	4	SL	.093	lb ai/A	40.7	0.0	87.1
14	HARMONY EXTRA	75	WG	.0075	lb ai/A			
14	NIS	1	EC	.25	gal pr/100gal			
15	BANVEL	4	SL	.093	lb ai/A	45.0	0.0	79.2
15	HARMONY EXTRA	75	WG	.015	lb ai/A			
15	NIS	1	EC	.25	gal pr/100gal			
16	UNTREAT CHECK					0.0	0.0	87.1
LSD (.05) =						7.3	5.7	16.4
Standard Dev. =						4.38511	3.42073	9.80837
CV =						16.20	218.93	11.66
Block F						1.485	2.804	2.669
Block Prob(F)						0.2426	0.0765	0.0857
Treatment F						29.895	0.804	1.057
Treatment Prob(F)						0.0001	0.6648	0.4313

Barley Tolerance to Banvel Tankmix Treatments

Site Description

Crop: Barley	Variety: Gallatin	Planting Date: 5-6-96
Planting Method: Double Disk Drill		Seeding Rate: 60 Lbs
Depth, Unit: 1.5"	Row Spacing, Unit: 7"	Soil Moisture: Good
Plot Width, Unit: 10 FT	Plot Length, Unit: 18.3 FT	
Reps: 3	Site Type: R13	Study Design: RCB
Field Preparation/Plot Maintenance: Conventional Seedbed Preparation		
Fertility: 200 Material Lbs. of 27-14-0 on 5-6-96 with Seed		

Application Information

Application Date:	6-3-96
Time of Day:	10:00AM
Application Method:	BACKPACK
Application Timing:	POST
Air Temp., Unit:	75 F
% Relative Humidity:	58
Wind Velocity, Unit:	0 MPH
Dew Presence (Y/N):	N
Soil Temp., Unit:	64 F
Soil Moisture:	GOOD
% Cloud Cover:	30

Plant Species	Plant Stage
Barley	3.5 Leaf

Application Equipment

Sprayer Type	Speed MPH	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	GPA	Carrier	PSI
Backpack	2.5	Flatfan	11002XR	14"	20"	10'	20	H2O	20