

Evaluation of Trinexapac-ethyl (Palisade) on Barley at Minot

Variety	Treatment	Days		Plant Height	Lodging	% Plump	% Thin	1000 KWT	Test Weight	Protein	Grain Yield
		to Head	DAP ¹								
				inches	0-9 ²	>6/64	<5/64	g	lbs/bu	%	bu/A
Celebration	untrt	58		32	4	92	1	39	48.2	14.6	94.9
Celebration	Palisade	62		29	0	85	1	36	46.9	15.0	92.9
Pinnacle	untrt	57		32	0	95	1	55	48.7	12.3	96.9
Pinnacle	Palisade	61		26	0	94	1	53	47.8	12.6	89.2
Trial Mean		60		30	1	91	1	46	47.9	13.6	93.5
C.V.%		1.8		2.2	51	2.3	28	6.5	0.7	2.6	5.8
LSD 0.05		2		1	1	4	NS	6	0.6	0.7	NS

Combined Means

Treatment	Days		Plant Height	Lodging	% Plump	% Thin	1000 KWT	Test Weight	Protein	Grain Yield
	to Head	DAP ¹								
			inches	0-9 ²	>6/64	<5/64	g	lbs/bu	%	bu/A
untrt		58	32	2	94	1	47	48.5	13.5	95.9
Palisade		62	28	0	89	1	45	47.3	13.8	91.0
LSD 0.05		1	2	NS	NS	NS	NS	0.7	NS	NS

¹ DAP = Days after planting.² Lodging: 0 = none, 9 = lying flat on the ground.

NS = no statistical difference between treatments.

Planting Date: May 3

Planting Rate: 1 million PLS/A

Palisade treatments were applied at 14 oz/A during stem elongation (June 7).

Harvest Date: August 10

Previous Crop: soybean

Tillage: No-till

Soil Type: Williams Loam

Summary: Palisade treatments significantly reduced plant height of both varieties. Lodging was not an issue with the variety Pinnacle but the Palisade treatment completely eliminated lodging on Celebration. On average, Palisade treatments delayed heading by 4 days and decreased test weight by more than a pound per bushel. Palisade treatments also tended to reduce % plump, kernel weight and grain yields but not significantly.