

Heartland Farms — B-53 Potato Trial Results

ZyDrive vs Untreated · In-season digs, bulk dig yield & tuber comparisons

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Trial Highlights

ZyDrive vs Untreated, B-53 bulk dig and in-season digs

628 vs 507

cwt/acre average yield

ZyDrive 628.33 vs Untreated 506.80

+121 cwt/a

yield advantage

about +24% over untreated

482 vs 417

bulk dig tubers (3 reps)

ZyDrive vs Untreated

81.2 vs 58.6 lb

2½–3¼" size class weight

ZyDrive vs Untreated, 3 reps

In-season digs: total tubers on 3 plants (ZyDrive vs Untreated)

Dig 7/4

28 vs 24 tubers

Canopy 98.45% vs 97.34%

Dig 7/25

37 vs 30 tubers

Canopy 96.88% vs 95.15%

Dig 8/11

41 vs 30 tubers

Canopy 83.87% vs 81.46%

Average canopy was slightly higher for ZyDrive at every dig.

In-Season Dig — 7/4

Stem lengths, total tubers on 3 plants, and average canopy

ZyDrive

Stem lengths

Plant 1: 36in 34in 30in 29.5in

Plant 2: 34in 27in 36in 29in

Plant 3: 31in 29.5in 27in 34.5in

28

Total tubers on 3 plants

98.45%

Average canopy

Untreated

Stem lengths

Plant 1: 30in 40in 33in 32in

Plant 2: 34in 33in 31in

Plant 3: 35in 32in 35in 27in

24

Total tubers on 3 plants

97.34%

Average canopy

In-Season Dig — 7/25

Stem lengths, total tubers on 3 plants, and average canopy

ZyDrive

Stem lengths

Plant 1: 42in 46in 39in

Plant 2: 45in 43in 41in 46in 40in

Plant 3: 41in 37in 43in 38in

37

Total tubers on 3 plants

96.88%

Average canopy

Untreated

Stem lengths

Plant 1: 34in 33in 37in 36in

Plant 2: 36in 33in 41in 47in 48in

Plant 3: 35in 38in 41in

30

Total tubers on 3 plants

95.15%

Average canopy

In-Season Dig — 8/11

Stem lengths, total tubers on 3 plants, and average canopy

ZyDrive

Stem lengths

Plant 1: 40in 38in 41in 42in

Plant 2: 36in 37in 42in 40in

Plant 3: 39in 40in 43in 36in

41

Total tubers on 3 plants

83.87%

Average canopy

Untreated

Stem lengths

Plant 1: 43in 46in 48in 48in

Plant 2: 35in 50in 49in

Plant 3: 43in 52in 51in

30

Total tubers on 3 plants

81.46%

Average canopy

Bulk Dig Data — ZyDrive

Weight (lbs) and tuber count by size class (inches), three replications

Size class	Rep 1: 13 plants • 37 stems		Rep 2: 14 plants • 45 stems		Rep 3: 15 plants • 47 stems	
	Weight (lbs)	Tuber count	Weight (lbs)	Tuber count	Weight (lbs)	Tuber count
< 1 7/8	3.5	53	1.4	23	2.1	36
1 7/8 – 2 1/2	14.285	64	10.5	47	11.615	55
2 1/2 – 3 1/4	19.72	45	32.65	75	28.85	77
3 1/4 – 4	2.72	3	—	—	2.48	4
> 4	—	—	—	—	—	—
Total	40.225	165	44.55	145	45.045	172
Yield CWT/Acre	584.067		646.866		654.0534	

Average yield: 628.3288 CWT/Acre

Bulk Dig Data — Untreated

Weight (lbs) and tuber count by size class (inches), three replications

Size class	Rep 1: 12 plants · 42 stems		Rep 2: 12 plants · 39 stems		Rep 3: 15 plants · 45 stems	
	Weight (lbs)	Tuber count	Weight (lbs)	Tuber count	Weight (lbs)	Tuber count
< 1 7/8	1.77	22	1.35	21	2.55	35
1 7/8 – 2 1/2	11.18	62	14.7	67	12.95	64
2 1/2 – 3 1/4	23.11	59	17.05	41	18.4	44
3 1/4 – 4	1.65	2	—	—	—	—
> 4	—	—	—	—	—	—
Total	37.71	145	33.1	129	33.9	143
Yield CWT/Acre	547.5492		480.612		492.228	

Average yield: 506.7964 CWT/Acre

Bulk Dig Tubers — Comparison 1

Untreated (left) vs ZyDrive (right). Same wooden bin, Test 1 for both treatments



Untreated



ZyDrive

Bulk Dig Tubers — Comparison 2

Untreated (left) vs ZyDrive (right). Same sorting tray; Untreated photo is Test 3, ZyDrive photo is Test 2 (as paired in the original deck)



Untreated



ZyDrive

ZyDrive Trial Summary

Yield increase

+120 bags per acre with ZyDrive (bulk dig average 628.33 vs 506.80 cwt/acre)

Quality & uniformity

Improved size distribution and consistency

Reduced disease

Less scab observed

ROI

Strong return with fumigation cost savings