



2015 Dry Farming Demonstration

Oak Creek Center for Urban Horticulture
Summary and Resource Sheet

Soil type: Dayton Silt Loam

Soil preparation:

- Broke ground on 3/17 with spader
- Compost (2-3 inches) and lime (1.5 ton/acre) spread and tilled in on 3/30
- Chisel plow – early April
- Till – once early April and once late April
- Seed bed preparation – early May for Dry Beans and Potatoes and mid-May for transplants (tomato, squash, melon)

Plant Family: Fabaceae

- Deer ate top 30-50% off of all plants. Yield data was still collected but should be taken with a grain of salt
- Whipple was the highest yielding variety
- Medium density averaged across varieties was the highest yielding

Crop	Variety	Direct seed or Transplant	Planting Date(s)	Harvest Date	Yield (lbs/25 row ft)			Seed source
					Low Density *	Medium Density *	High Density *	
Dry Bean	Oland Swedish Brown	Direct seed	May 5-7	Sept 11	0.3	0.7	0.3	Adaptive Seeds
Dry Bean	Titus Cannellini	Direct seed	May 5-7	Sept 11	0.1	0.6	0.5	Adaptive Seeds
Dry Bean	Wolverine's Orca	Direct seed	May 5-7	Sept 11	0.3	0.7	0.6	Adaptive Seeds
Dry Bean	Whipple	Direct seed	May 5-7	Sept 11	0.7	1.1	1.2	Adaptive Seeds

* Low Density (1.5 oz or approx. 75 seed/125 sq ft), spacing: 4" in row, 30" between row)

* Medium Density (2.5 oz or approx 105 seed/125 sq. ft), spacing: staggered 4" double row, 30" between row

* High Density (4 oz or approx 180 seed/125 sq ft), planting technique used by Dick W. – seed broadcast in row and incorporated with Mantis tiller

Plant Family: Curcubitaceae

- Low germination rates in direct-seeded curcubits (seeded on May 25, 2015), especially melons ('Eel River', 'Escorial', 'Little Baby Flower') and 'Zeppelin' Delicata

Crop	Variety	Planting Date(s)	Harvest Date	Spacing	Seed source	Yield (lbs/plant)	Yield (tons/acre)
Winter squash	Zeppelin Delicata	May 27	Sept 25	4' in row 5' between row	Wild Garden Seed	8	8.6
Winter Squash	Stella Blue	May 27	Sept 25	4' in row 5' between row	Seed Revolution Now!	12	13.1
Winter Squash	Blue Hokkaido	May 27	Sept 25	4' in row 5' between row	Paul Cauthorn via Dick W.	16	17.4
Cucumber	Trozy	May 27	July - Sept	4' in row 5' between row	Paul Cauthorn via Iraqi Seed Project		
Zucchini	Dark Star	May 27	Early July - Sept	4' in row 5' between row	Seed Revolution Now!		
Melon	Eel River	May 27	No germination	4' in row 5' between row	Seed Revolution Now!		
Melon	Little Baby Flower Watermelon	May 27	Late July - Sept	4' in row 5' between row	Johnny's Seed		

Melon	Escorial	May 27	Late July - Sept	4' in row 5' between row	Johnny's Seed		
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- Notable vigor of dry farmed varieties particularly the 'Dark Star' Zucchini
- Dry farmed 'Little Baby Flower' watermelon ranked higher in categories of appearance, texture, and sweetness than it's irrigated counterpart
 - Note: Some local growers have stopped growing this small early maturing variety due to splitting in irrigated systems, but no splitting was observed in this variety in 2015 dry farming demo

Plant Family: Solanaceae

- Blossom end rot severe in first flush of tomatoes, and a little less in second flush
- Tomato planting density likely too high @ 12 sq ft per plant (3' in row, 4' between row)
- Try varieties in 2016 that are less susceptible to blossom end rot - 'Early Girl' and 'Big Beef' suggested
- The Yukon Gold potato were hilled 3 times, ready to harvest in mid-July but dug on Aug 10, blemish free at harvest

Crop	Variety	Direct seed or Transplant	Planting Date(s)	Harvest Date (s)	Spacing	Seed source	Yield (lbs/plant)	Yield (tons/acre)
Tomato	Jory	Transplant	May 25	Mid July - Sept	3' in row 4' between row	Adaptive Seeds		
Tomato	Mama Leone's	Transplant	May 25	Mid July - Sept	3' in row 4' between row	Hudson Seed Library		
Potato	Yukon Gold	Direct seed	May 5	August 10	2.5' in row 5' between row	Wilco	4	7.0

Dry Farming Resources

OSU Extension Small Farms Dry Farming Demonstration: <http://smallfarms.oregonstate.edu/dry-farming-demonstration>

Cascadia Drought Group: <https://cascadiadroughtgroup.wordpress.com/dry-farming/>

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Widtsøe, John. Dry Farming: A System of Agriculture for Countries Under Low Rainfall. New York. Macmillan, 1920.

Join Participatory Dry Farming Research Project!

Please contact Amy Garrett if you are interested in hosting a dry farming trial on your land.

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