Innovative Approaches to Catching and Storing Water

Andrew Millison – OSU & Permaculture Rising
Bogdan Caceu – La Creole Orchards
Pat Shenk – Canaan Hill Farm
Growing Resilience: Water Management Workshop Series

http://smallfarms.oregonstate.edu/wmws

February 20, 2016
- Growing Without Irrigation
- Innovative Approaches to Catching and Storing Water

March 30, 2016
- Navigating Water Law and Restrictions in Oregon

June 2, 2016
- Water, Soil and Carbon for Every Farm with Keyline Design: Learning from the world’s driest inhabited continent and it’s drought solutions – Darren Doherty (Regrarians Ltd.)

June 3-12, 2016
- Regrarians 10 day Integrated Farm Planning course - Albany, Oregon
  Contact Andrew Millson for more information.

August 2016
- Dry Farming Field Days - Corvallis, Aurora, and Central Point
  - Dates to be announced
Keyline Design

Hope for the Willamette Valley
Yobarnie Farm, Australia
Tree Belt Spacing in Keyline Systems
Keyline Cultivation Pattern

Darren Doherty: www.heenandoherty.com
Keyline Vineyard

Darren Doherty: www.heenandoherty.com
Keyline Irrigation – Ridge Dam

Darren Doherty: www.heenandoherty.com
Types of Dams in a Keyline System: Milkwood Permaculture Farm, Australia
Ponds with Contour Swales
Aquaculture and Irrigation: Seven Seeds Farm, Williams, Oregon
Taranaki Farm, Australia
Roadway Feeding Pond
Wolf Gulch, S. Oregon
Irrigated crops

Irrigated pasture

Homestead

Orchard

Dry pasture

Nut trees

Forestry: Widely spaced w/ grazing

Forestry: Closed Canopy

Forestry: Widely spaced w/ grazing

Irrigated pasture

Dry pasture

Irrigated crops

Dry pasture

Irrigated pasture

Dry pasture

Orchard

Forestry: Closed Canopy

Forestry: Closed Canopy

Forestry: Closed Canopy

Forestry: Closed Canopy

Forestry: Closed Canopy
Reservoir Application Map
For North Albany Farm:
5871 NW Metge Ave
2745 Independence Hwy
Albany, OR 97321

This map is not intended to provide legal dimensions or location of property ownership lines.

Drawn by Andrew Milliston
12-16-2014
Revised 2-13-2015
Shameless Plug: Darren Doherty Workshop

#REX7OREGON
Albany, Oregon, USA
3–12 June, 2016,
USD$1395 per person

June 3-12, Albany, Oregon
www.rex10.org
Canaan Hill Farm - Pat Schenk

- Founded in 1984
- First farm product was flowers
- Expanded to greenhouse baskets
- Added orchards and row crops the last 10 years
Season Extension Crucial for Small Farms

- USDA funded hoop house
- Installed in 2015
- 30 x 72
- Wind is a challenge
Tomatoes and cucumbers going in June 1\textsuperscript{st}.
Organic management – soil tested and low pH
Added lots of organic matter
All on drip
• Much faster growth in hoop house
• Best performers: Golden rave tomato, basil, Bella cucumbers, all peppers, and eggplants
• Less insect issues
Filled all three tanks with 11.5 inches of rainfall from a 30 x 36 ft roof. Total collected so far: 18,500 gal.

Installed 2015

Experimented with a small system starting many years ago.
Outfeed from tanks

- ½ horse flat-bottom submersible pump – don’t use well pumps but one designed for tanks!
Two inch outfeed flow valves
Pressure tanks

- Can always pressure down, can never pressure up
- Runs a 40 psi
- Flow restrictions
Flush system off Gutter

- 4 inch line with endcap to flush the first 15 gallons of water, then feeds into tank.
- Basket filter inside the tank.
La Creole Orchards – Bogdan Caceu
Polk County near Dallas, OR
Construction of 35,000-gallon tank
Tank finished in one day
Recent guided visit showcasing tank and its new cover
Hexa-Cover® Floating Cover
for controlling such things as:
- Odor
- Heat loss
- Emission
- Evaporation
- Organic- / Algae growth
- Bird Deterrent
off-grid solar-PV system provides 100% of power needed for pumping
moisture control: soil mounds covered by VisPore tree mats
moisture control: biodegradable mats from recycled paper
First crop of olives (November 2015)
Questions?

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