

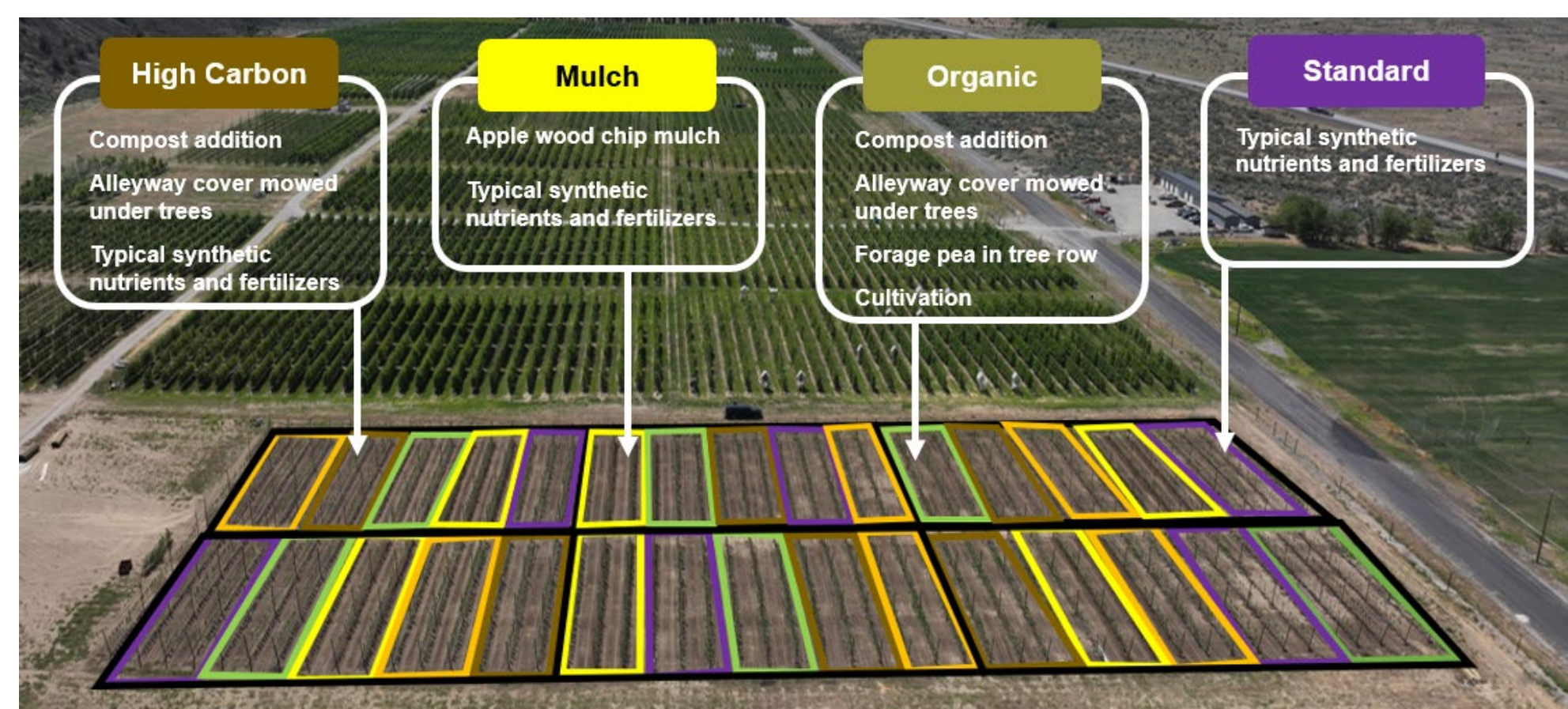
Tree Fruit Soil Health

Long Term Agroecological Research & Extension Site

Problem: Droughty soils, soil borne disease and nematodes, and compaction restricting root growth affect fruit quality and productivity.

Project Goal: Investigate organic matter additions to buffer environmental stress and improve fruit quality.

Treatments:



Mulch

- Chipped apple wood.
- Chip size 0.25-0.5 by 2.5-6 in.
- Aged at 131 F 15 days turning 3 times.
- 2 to 3 in depth ($93 \text{ yd}^{-3} \text{ acre}^{-1}$).
- Raked back from trees.



High Carbon

- Compost: 10 tons per acre. 19.5% C ~ 2 ton per acre C 1.7% N - 0.81% P - 2.02% K
- Mown-and-blown grass clippings



Integrated Organic

- Same as high carbon
- + cultivation (Kult Kress Finger weeder)

Biomass and carbon added with mow-n-blow
(US ton per acre)

	Biomass per mowing	Biomass 2024	Carbon per mowing	Carbon 2024
Organic	0.24 ± 0.03	0.82 ± 0.07	0.10 ± 0.01	0.35 ± 0.03
Carbon	0.28 ± 0.04	1.27 ± 0.10	0.12 ± 0.02	0.54 ± 0.04

Thank you to funders



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Results

