

# **The Net Returns of Establishing and Producing High-Density & Ultra High-Density Sweet Cherries**



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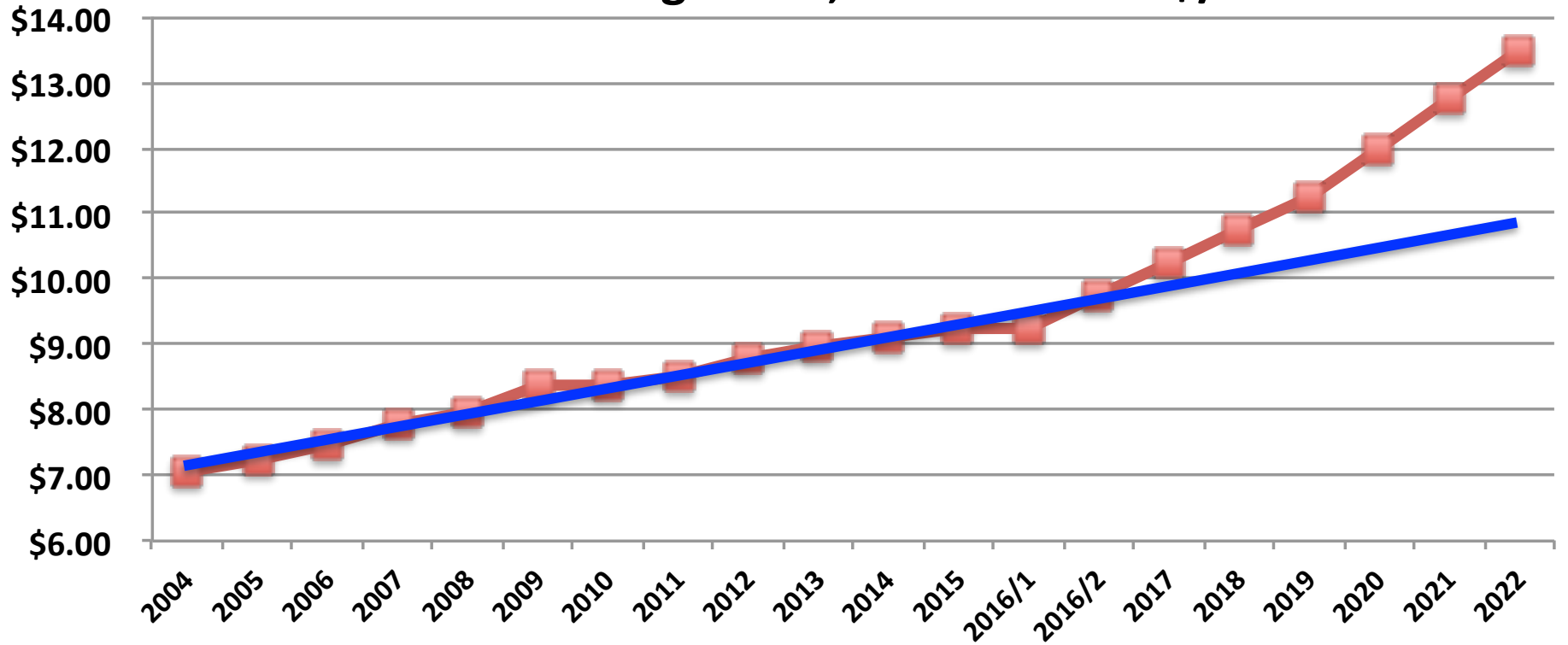
# Minimum Wage Rates, How Will They Impact Your Business?

- **\$13.50 per hour minimum wage rate are a reality by 2022**

Labor Rates Assumed in Cost of Establishment Study

	2016	2017	2018	2019	2020	2021	2022
Minimum Wage Rate	\$9.75	\$10.25	\$10.75	\$11.25	\$12.00	\$12.75	\$13.50
<i>% Increase</i>		5.13%	4.88%	4.65%	6.67%	6.25%	5.88%
General Labor Rates, per Hour	\$13.65	\$14.35	\$14.85	\$15.35	\$15.85	\$16.60	\$17.35
Tractor Driver Rates, per Hour	\$14.75	\$15.51	\$16.01	\$16.51	\$17.01	\$17.76	\$18.51
Supervisor Rates, per Hour	\$19.68	\$20.69	\$21.19	\$21.69	\$22.19	\$22.94	\$23.69
Harvest Labor Rates, per Lb.	\$0.24	\$0.26	\$0.28	\$0.30	\$0.32	\$0.34	\$0.36

# Minimum Wage Rate, 2004 to 2021: \$/hour



2017

## Estimated Per Acre Returns Over Cash Costs at Varying Yields and Prices

Price per Lb	Lbs per Acre									
	6,000	7,000	8,000	9,000	10,000	11,000	12,000	13,000	14,000	
\$ 0.60	\$ (1,401)	\$ (1,096)	\$ (792)	\$ (487)	\$ (182)	\$ 123	\$ 427	\$ 732	\$ 1,037	
\$ 0.70	\$ (801)	\$ (396)	\$ 8	\$ 413	\$ 818	\$ 1,223	\$ 1,627	\$ 2,032	\$ 2,437	
\$ 0.80	\$ (201)	\$ 304	\$ 808	\$ 1,313	\$ 1,818	\$ 2,323	\$ 2,827	\$ 3,332	\$ 3,837	
\$ 0.90	\$ 399	\$ 1,004	\$ 1,608	\$ 2,213	\$ 2,818	\$ 3,423	\$ 4,027	\$ 4,632	\$ 5,237	
\$ 1.00	\$ 999	\$ 1,704	\$ 2,408	\$ 3,113	\$ 3,818	\$ 4,523	\$ 5,227	\$ 5,932	\$ 6,637	
\$ 1.10	\$ 1,599	\$ 2,404	\$ 3,208	\$ 4,013	\$ 4,818	\$ 5,623	\$ 6,427	\$ 7,232	\$ 8,037	
\$ 1.20	\$ 2,199	\$ 3,104	\$ 4,008	\$ 4,913	\$ 5,818	\$ 6,723	\$ 7,627	\$ 8,532	\$ 9,437	

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2022, adjusted

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\$689/acre

8.46% increase in cash costs

\$0.0574 increase in RtG

\$69,700/100 acres

\$344,500/500 acres

# *Orchard Renewal Decisions should be based on Capital Investment Analysis*

**Capital investment analysis is a budgeting procedure to assess the potential profitability of a long-term investment. The goal is to pinpoint the the most likely profitable option, at a minimum, based on a discounted cash flow analysis – net present value and internal rate of return.**



## **Profitability**

### **Can I Make Money Doing This?**

- 1. Net Present Value**
- 2. Internal Rate of Return**



## **Feasibility**

### **Can I Afford To Do This?**

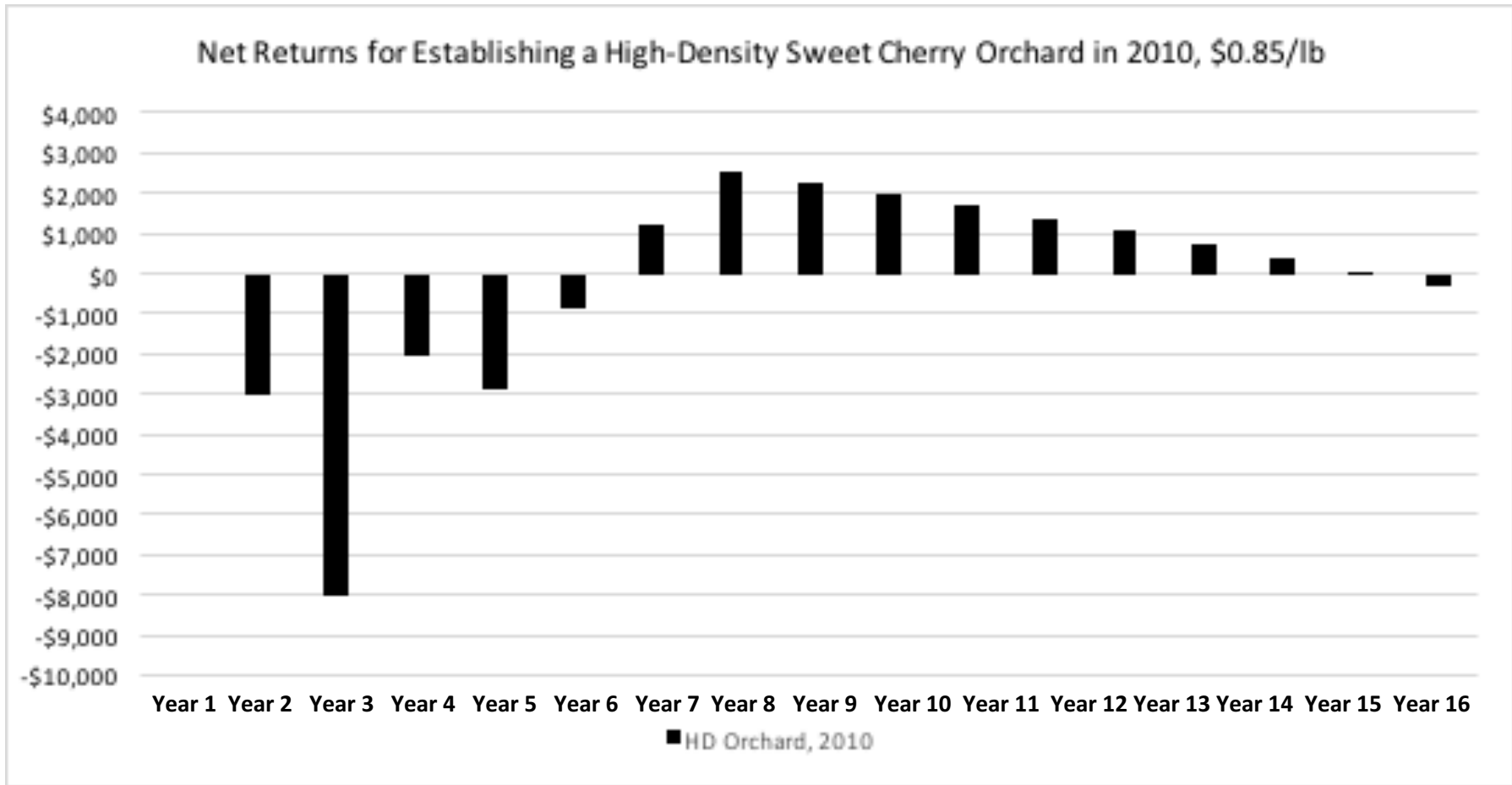
- 1. Cash Flow Analysis**
  - Year to cash flow**
  - Payback period**
  - Costs to implement**



***THREE Key Factors to  
Successful Orchard Renewal***

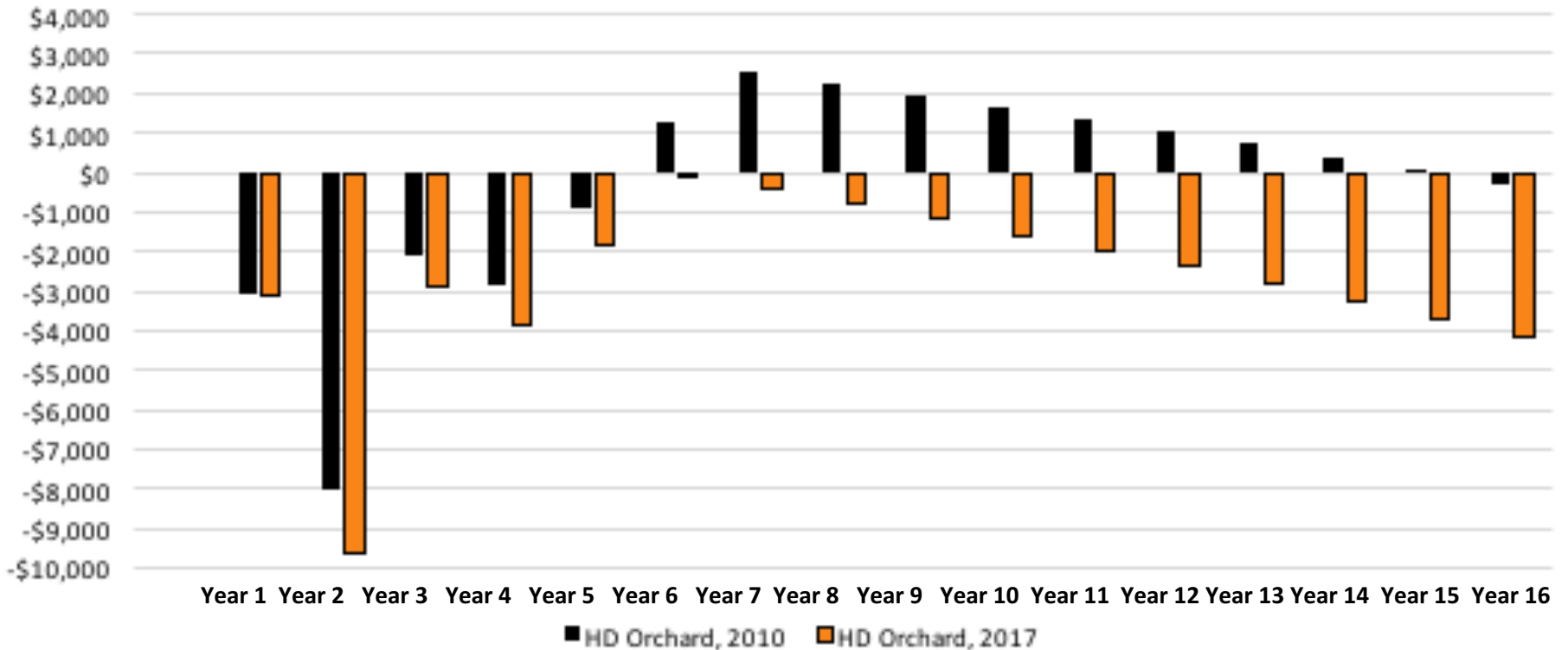
- 1. Price**
- 2. Yield (When & How Much)**
- 3. Costs – Production & Establishment**

# *The Good Ol' Days!!!*



# *The Good Ol' Days, ARE LONG GONE!!!!*

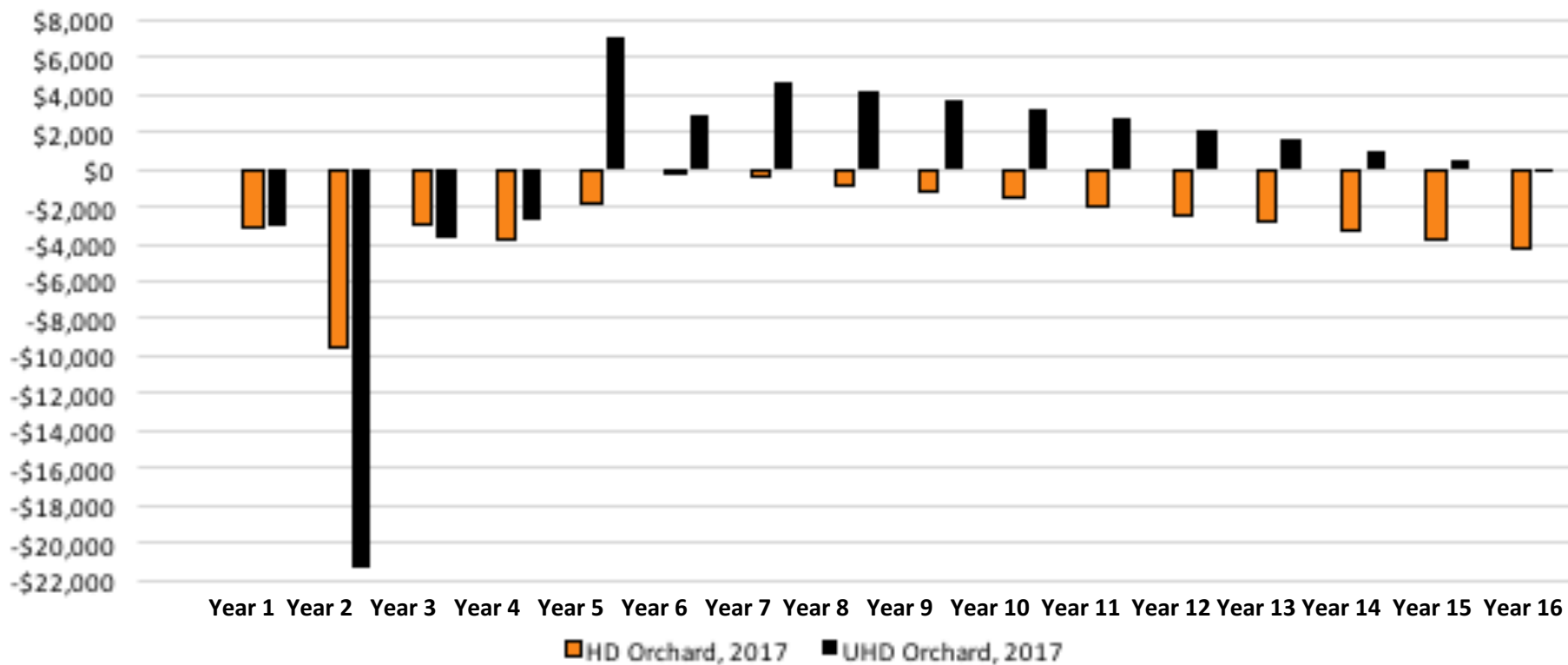
Net Returns for Establishing a High-Density Sweet Cherry Orchard in 2010 and 2017,  
\$0.85/lb



**Sweet Cherry Yields Assumed  
in Updated Cost of Production Study**

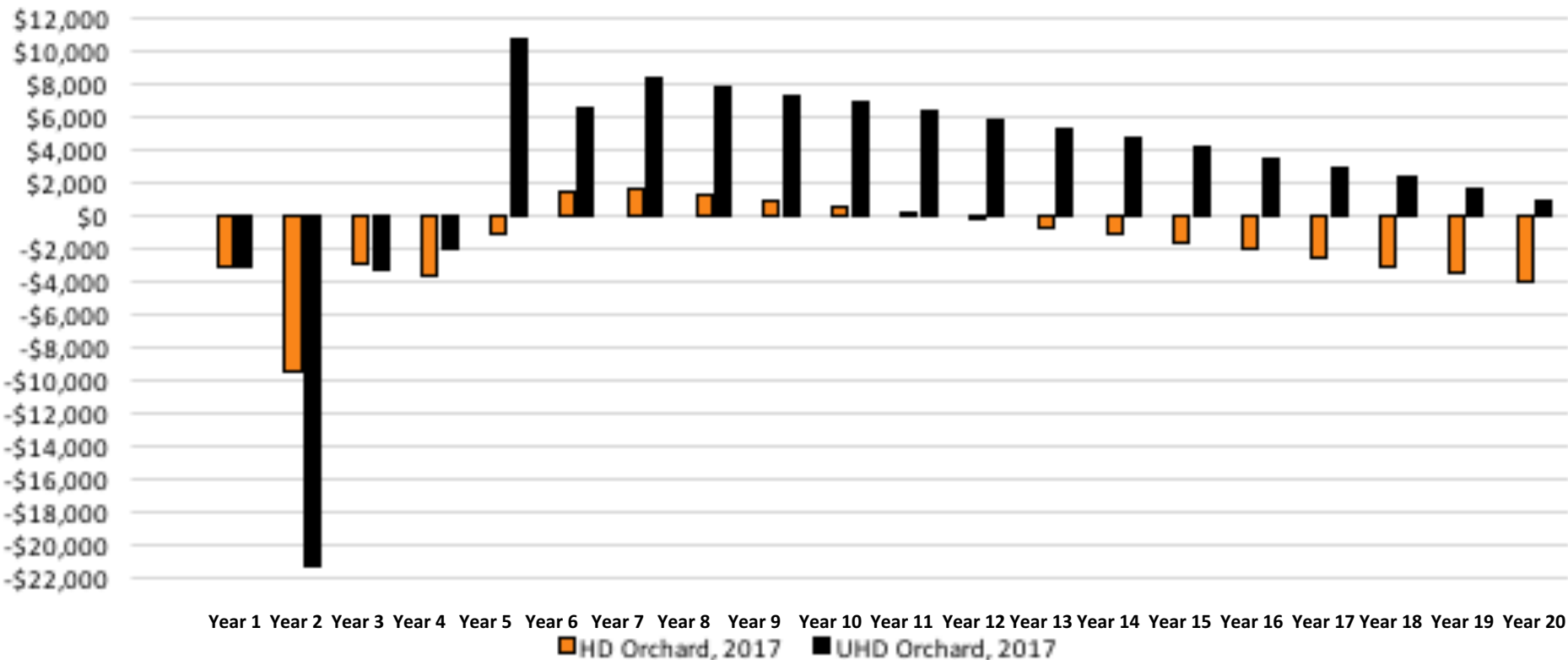
	High-Density	Ultra High-Density
Year 1	0	0
Year 2	0	1,500
Year 3	1,000	4,000
Year 4	5,000	24,000
Year 5	10,000	24,000
Year 6	14,000	24,000

## Net Returns for Establishing a High-Density & Ultra High-Density Sweet Cherry Orchard, \$0.85/lb



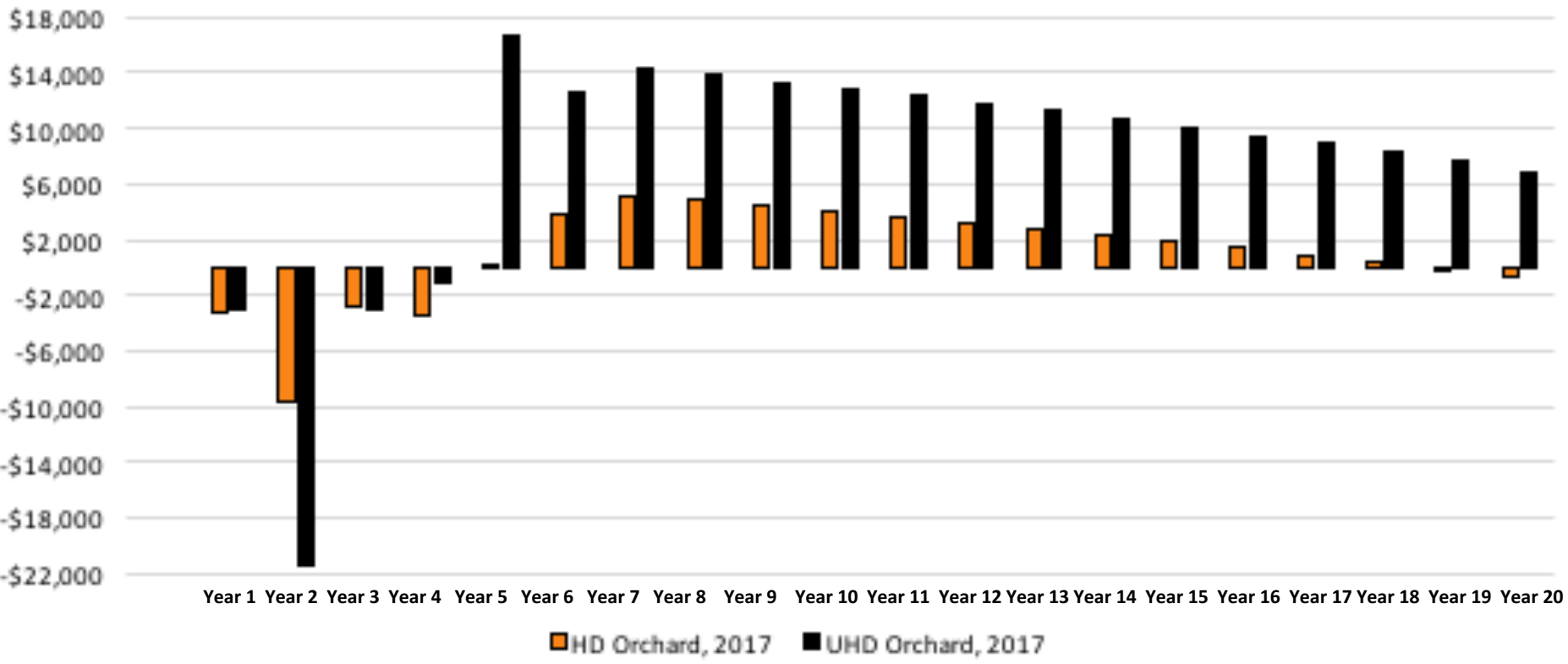
	High-Density	Ultra High-Density
<b>Net Returns after 20 Years:</b>	<b>-\$65,506</b>	<b>-\$ 3,712</b>
<b>Net Present Value, 6% Discount Rate:</b>	<b>-\$43,240</b>	<b>-\$15,136</b>
<b>Internal Rate of Return (%):</b>	<b>N/A</b>	<b>N/A</b>
<b>Year returns are greater than annual costs:</b>	<b>N/A</b>	<b>5</b>
<b>Year returns are &gt; than total costs of all previous years:</b>	<b>N/A</b>	<b>7</b>
<b>Total cash costs to implement:</b>	<b>DWK</b>	<b>\$30,702</b>

## Net Returns for Establishing a High-Density & Ultra High-Density Sweet Cherry Orchard, \$1.00/lb



	<u>High-Density</u>	<u>Ultra High-Density</u>
<b>Net Returns after 20 Years:</b>	<b>-\$33,701</b>	<b>\$54,723</b>
<b>Net Present Value, 6% Discount Rate:</b>	<b>-\$27,740</b>	<b>\$14,350</b>
<b>Internal Rate of Return (%):</b>	<b>N/A</b>	<b>10.39</b>
<b>Year returns are greater than annual costs:</b>	<b>6</b>	<b>5</b>
<b>Year returns are &gt; than total costs of all previous years:</b>	<b>N/A</b>	<b>8</b>
<b>Total cash costs to implement:</b>	<b>\$33,701</b>	<b>\$29,877</b>

## Net Returns for Establishing a High-Density & Ultra High-Density Sweet Cherry Orchard, \$1.25/lb



	<u>High-Density</u>	<u>Ultra High-Density</u>
<b>Net Returns after 20 Years:</b>	<b>\$19,296</b>	<b>\$152,092</b>
<b>Net Present Value, 6% Discount Rate:</b>	<b>-\$ 1,913</b>	<b>\$ 63,483</b>
<b>Internal Rate of Return (%):</b>	<b>5.18</b>	<b>20.31</b>
<b>Year returns are greater than annual costs:</b>	<b>5</b>	<b>5</b>
<b>Year returns are &gt; than total costs of all previous years:</b>	<b>10</b>	<b>6</b>
<b>Total cash costs to implement:</b>	<b>\$19,080</b>	<b>\$28,502</b>



# The Net Returns of Establishing and Producing High-Density & Ultra High-Density Sweet Cherries



Questions or Comments!