

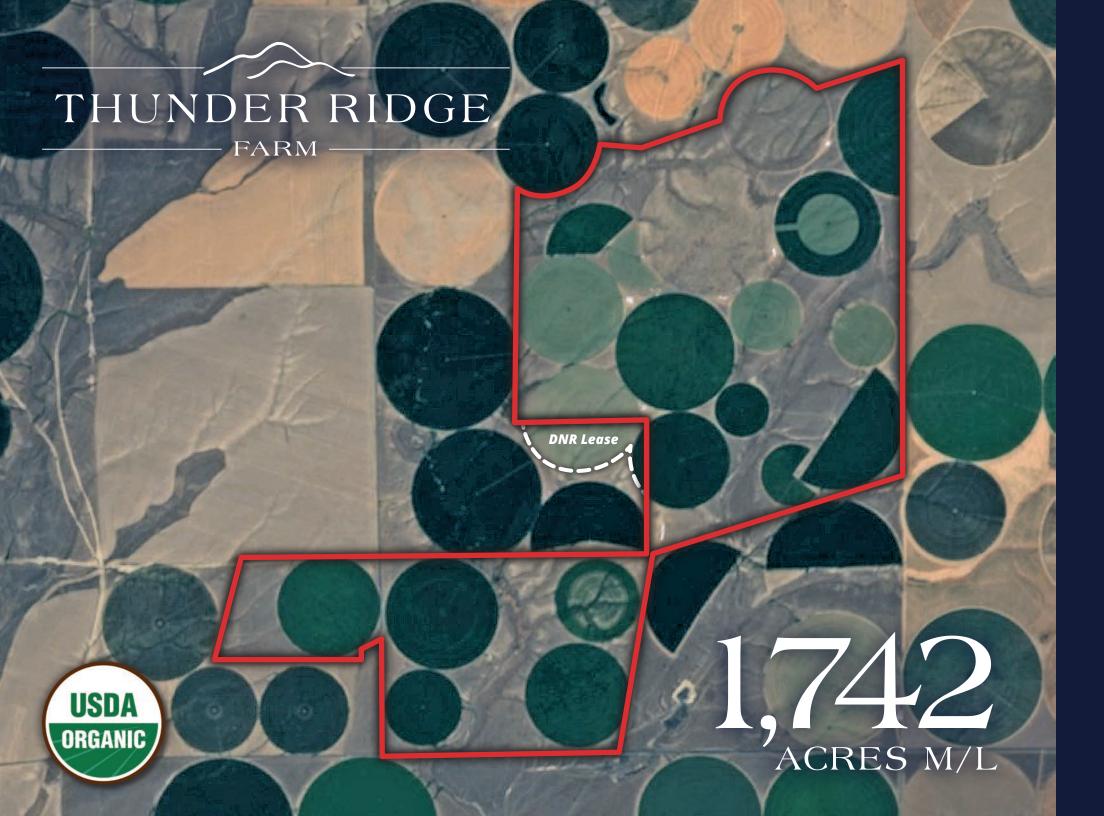




ORGANIC FARMLAND OFFERING







### **EXECUTIVE SUMMARY**

The Thunder Ridge Farm is located in the Horse Heaven Hills of Benton County, Washington less than 10 miles from the Columbia River and the Washington-Oregon border. The Farm is comprised of 1,742 assessed acres m/l. Property consists of 1,183 certified organic cropland acres with an additional 233.53 acres re-enrolled in the Conservation Reserve Program through 2030. In addition, the Thunder Ridge Farm also includes a DNR lease totaling 50.5 acres of which 48.3 acres are authorized to be irrigated with water supplied from DNR water right no. G4-22435P. Primary soils on the property include the productive Warden Silt Loam and Finley Sandy Loam. In addition to the productive, fertile soils, the Farm has extensive water rights which authorize 901 acres to be irrigated through two wells, 20 well-maintained irrigation pivots and an extensive network of mainlines. The water delivery system is telemetrically controlled offering remote access to the irrigation infrastructure on the Farm. With the productive soils and extensive water rights and infrastructure, the Farm has supported numerous organic crops over the years including primary crops such as alfalfa, corn, and wheat along with numerous specialty crops such as potatoes, onions, sweet corn, and carrot seed. These combined characteristics make this farm ideal for continued success in organic production.







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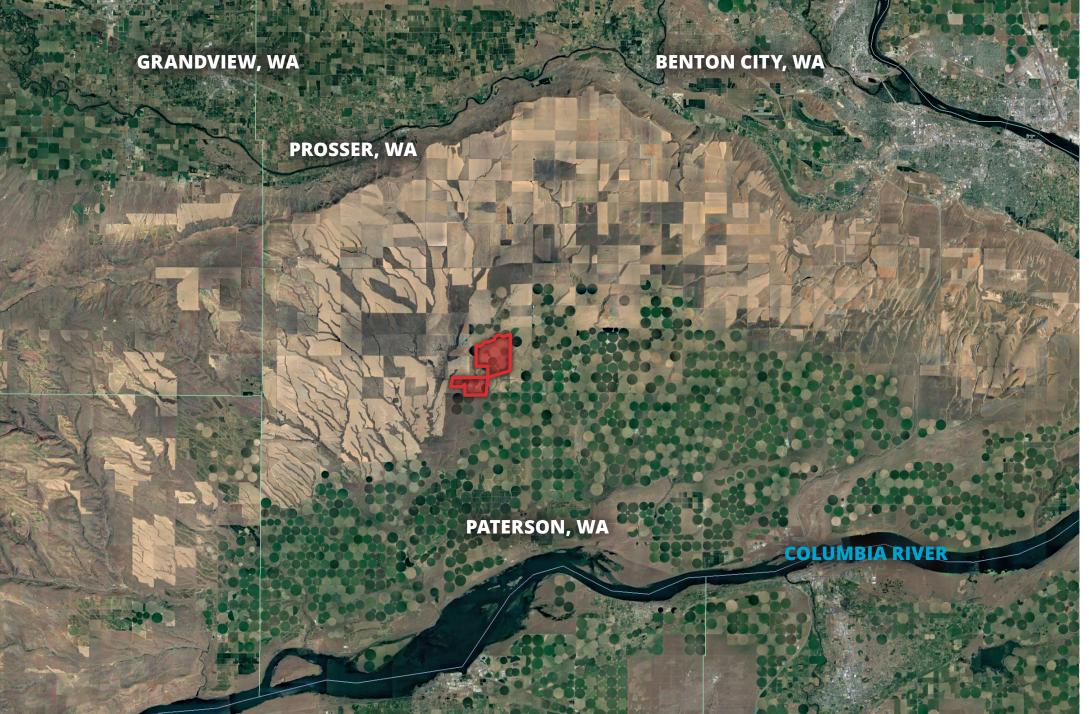
Visit our website for more information, photos, videos, and interactive maps:

ThunderRidgeOffering.com

The Thunder Ridge property is situated within the Horse Heaven Hills region of Washington. The Horse Heaven Hills encompasses a large portion of Benton County from south of State Highway 12 to State Highway 14 at the Columbia River. The Horse Heaven Hills area consists of both irrigated and dryland farming and contains a wide variety of permanent, specialty, and row crops.

The Thunder Ridge property is accessed from Horrigan Road, a paved county road. From Prosser, Washington travel south on Highway 221 for 19 miles before turning right and heading east on Horrigan Road. Continue east on Horrigan Road for 2.5 miles and farm will be situated on the north side of the road.





# WASHINGTON

Washington State has three main components that drive its agricultural economy:

- Wide range of excellent climates suitable for a variety of crops
- Abundance of productive soils
- Ample fresh water for irrigation

These factors combined with intelligent, progressive, leading-edge farmers and farming methods account for the approximately \$50 billion in annual agricultural economic activity in the state. Washington state produces roughly 300 different crops, second only to California in agricultural diversity, providing landowners and operators tremendous optionality with their farming operations in the state.

### HORSE HEAVEN HILLS

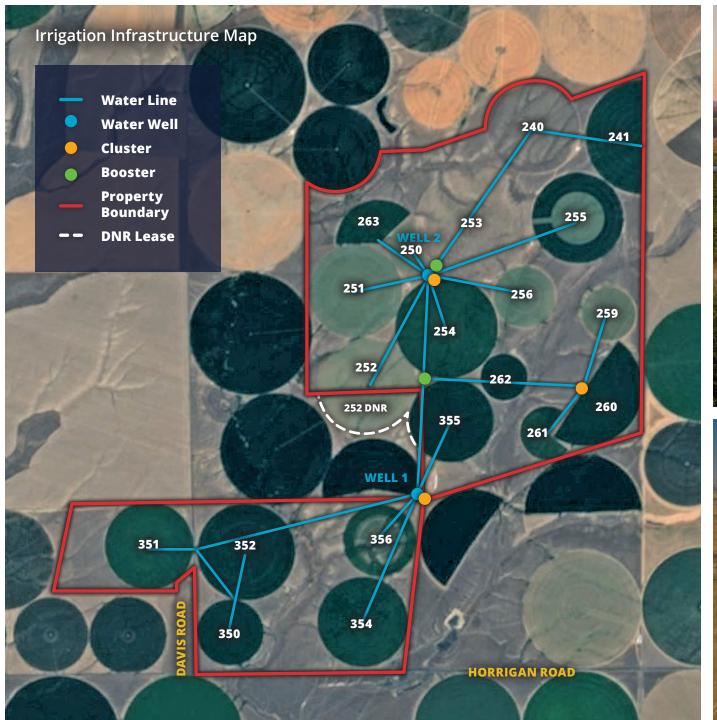
The Horse Heaven Hills were formed millions of years ago from the uplift and folding of basaltic lavas. The Hills were further shaped by the massive glacial floods of the last ice age. Irrigation from the Yakima and Columbia Rivers have made parts of the Hills into an important agricultural region with the irrigation network continuing to expand. In more recent years, the Horse Heaven Hills have become a popular region for viticulture with the establishment of the Horse Heaven Hills AVA in 2005, which is part of the larger Columbia Valley AVA. Grapes planted in the south facing slopes of the Horse Heaven Hills benefit from the airflow deriving from the Columbia Gorge, reducing rot and fungal disease.

The Horse Heaven Hills are a climatically diverse growing region. Precipitation varies throughout with an average of 9 inches (230 mm) in the lower portions of the range to near 20 inches (510 mm) annually in the higher elevations.

# IRRIGATION INFRASTRUCTURE

The Thunder Ridge water delivery system is telemetrically controlled, offering remote access to the irrigation infrastructure on the Farm. Installed between 2005 and 2016, all of the 20 pivots are Zimmatic, 9500P series with Field Boss Panels. Each pivot is in great condition with yearly maintenance completed on all pivots. Additional irrigation infrastructure includes two boosters used to increase water pressure throughout the Farm and three clusters used to increase efficiency and direct access to Field Boss Panels on a portion of the Farm. In addition, there are over five miles of PVC water lines which span the property delivering water to each pivot.

The property is serviced by two deep basalt wells with depths of 1,126 feet and 1,250 feet respectively and a combined flow rate of approximately 5,300 gallons per minute (gpm). Each well site is equipped with a variable frequency drive, reducing pumping costs for the farming operation.







### IRRIGATION PIVOT SUMMARY

Pivot #	Brand	Year	Model	Tower
240	Zimmatic	2005	9500 P	7
241	Zimmatic	2015	9500 P	8
250	Zimmatic	2011	9500 P	4
251	Zimmatic	2005	9500 P	7
252	Zimmatic	2005	9500 P	7
253	Zimmatic	2005	9500 P	8
254	Zimmatic	2005	9500 P	7
255	Zimmatic	2005	9500 P	7
256	Zimmatic	2005	9500 P	5
259	Zimmatic	2016	9500 P	4
260	Zimmatic	2016	9500 P	8
261	Zimmatic	2016	9500 P	4
262	Zimmatic	2016	9500 P	3
263	Zimmatic	2016	9500 P	7
350	Zimmatic	2005	9500 P	5
351	Zimmatic	2005	9500 P	6
352	Zimmatic	2005	9500 P	7
354	Zimmatic	2005	9500 P	7
355	Zimmatic	2005	9500 P	6
356	Zimmatic	2005	9500 P	6

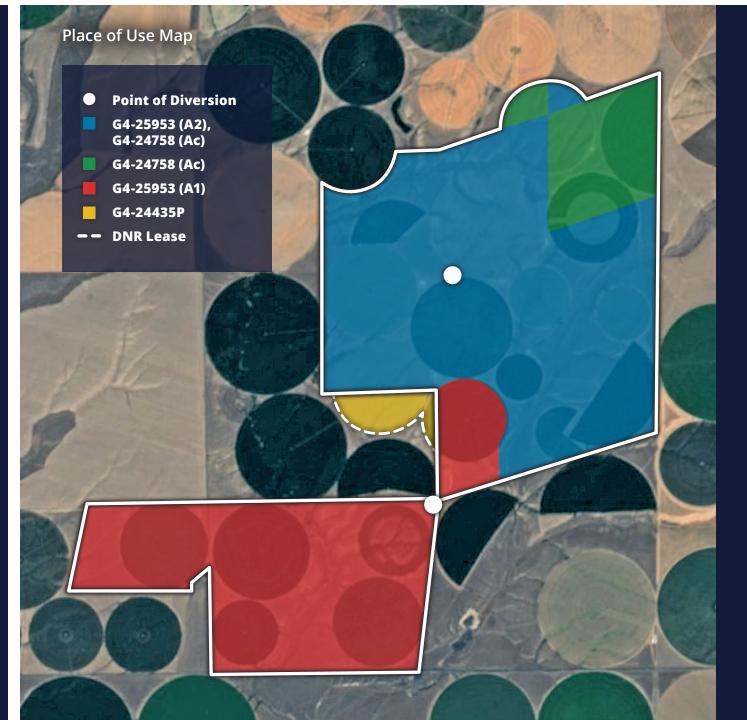
### IRRIGATION WELL SUMMARY

Well ID	Aquifer	Complete	Depth	Capacity
1	Wanapum	12/22/78	1123 ft	3,000 gpm+
2	Wanapum	3/15/80	1250 ft	3,000 gpm+

### WATER RIGHTS

Water for the Farm is allocated under four separate water rights which includes one water right (G4-24435P) specifically for the DNR leased ground. Together, these water rights authorize 5,812 gpm and 3,125.6 ac-ft of water to be used on the Farm. These existing state-issued water rights cover irrigation of 901 acres m/l from the two privately owned wells. The water rights have priority years ranging from 1976 to 1978. The current water rights are well-suited for "water spreading" which would allow for a substantial increase in permitted acres under irrigation by amending the water rights through the county water conservancy board or State Department of Ecology.

\*This map depicts the approximate boundaries of the place of use for each water right. Place of use was retrieved from and can be found through the State of Washington Department of Ecology.



# **ORGANIC OPERATION**

The Thunder Ridge Farm provides a unique opportunity for investors and owner operators to acquire an improved, organically certified, row crop asset with significant operating scale and crop production optionality.

### Organic Transition Value

The process of transitioning an asset to organic production is three years and can result in hundreds or even thousands of dollars per acre of lost revenue depending on the specific asset and cropping system. During the transition crop years, the added expenses associated with organic production are incurred while pest and weed pressures potentially impact yield and produced crops are unable to deliver organic price premiums.

#### Organic Production Characteristics

The Thunder Ridge Farm is nearly ideally suited for long-term organic production success. Controlled water through the irrigation pivots enables precise timing of field operations, a critical constraint for successful organic production. Climate conditions on the Farm provide a long growing season supporting cover crop incorporation that can suppress weeds and pests while supporting long-term soil health. Thunder Ridge is located in Benton County which ranks third in Washington and tenth in the US in market value of agricultural products sold in the "vegetables, melons, potatoes, sweet potatoes" category. This provides a strong local operator base and there are multiple regional sources of organic fertility. The Pacific Northwest is a leading region nationally for consumer production of organic products. The organic supply chains in the region are well developed and offer a range of premium markets for organic crops.

#### Enterprise Value

Through the improved irrigation infrastructure, standing organic certification, and asset size, the Thunder Ridge Farm is uniquely positioned for investors seeking to deploy direct operating asset management strategies. A wide range of organic crops can be successfully produced on the Farm with great potential to continue to build and expand the specialty crop operations such as potatoes, onions, and carrot seed. Long-term organic market relationships can be developed around that optionality to enhance asset value for a direct operating investor.

\*Statistics retrieved from the USDA National Agricultural Statistic Service





### **CROP PRODUCTION**

Over the years, the current operators have optimized the Thunder Ridge Farm by transitioning the property to fully organic and making the necessary improvements to the infrastructure and crop plan. The cropping system strategy is built around four components:



 A primary set of organic row crops, grains and alfalfa forage represent approximately 80% of the irrigated cropland acres in any particular year. These include wheat, corn, and different varieties of forages including alfalfa and clover. This component of the strategy is formulated around the crops with robust and consistent commodity markets.



 A secondary set of the irrigated cropland acres are planted to organic higher value specialty crops and represent about 20% of the irrigated crop acres. The placement of these crops is driven by rotation and direct marketing opportunities and provide significant financial upside for the farming operation. Historical high value crops grown on the property include potatoes and carrot seed.



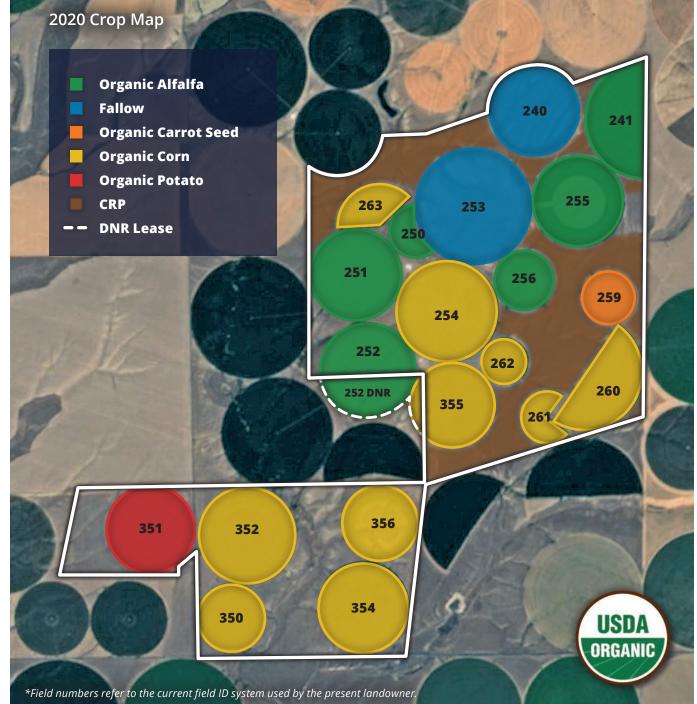
 All crop selections and rotation strategies are chosen to optimize the available and permitted water. In order to best manage and allocate the available water, a couple pivots are "fallowed each year, allowing high value, water intensive crops to be grown underneath other pivots to maximize farm income. In addition, fallow provides necessary break periods needed to rotate from certain crop selections.



• The Conservation Reserve Program (CRP) is utilized on approximately 15% of the Farm. This component of the strategy is built around maximizing conservation, while providing consistent income for a portion of the less desirable, non-irrigated acres of the Farm.







### INSURABLE CROPS

Irrigated Organic

W. D.	County T-Yield	85% RP
rop		Guarantee
Barley	73	\$415.74
Processed Beans	1.4	\$498.75
ry Beans	2723	\$2,314.55
irapes	1	\$1,268.20
Blueberries	3300	\$3,316.50
Plums	78	\$508.95
otatoes	531	\$7,424.71
Corn	210	\$1,547.60
ugarbeets	14624	\$1,765.12
weet Corn	7.1	\$1,798.43
Peaches	146	\$1,297.58
Apricots	66	\$715.28
Nectarines	134	\$1,401.98
/lint	97	\$1,813.90
ry Peas	1807	\$168.95
pring Wheat	82	\$841.98
Pears	2.7	\$2,498.85
riticale	129	\$399.13
Vinter Wheat	92	\$982.19
nions	529	\$5,514.83

<sup>\*75%</sup> is maximum election

# INSURABLE CROPS Dryland Organic

Crop	County T-Yield	85% RP Guarantee
Barley	30	\$170.85







### FSA REPORTED INFORMATION

Farm #	Tract #	Farmland	Cropland	DCP Cropland	Effective DCP
4004	4613	47.03	47.03	47.03	47.03
4005	4614	196.07	107.4	107.4	107.4
4071	4448	55.33	55.33	55.33	55.33
4071	4691	327.5	327.5	327.5	327.5
4210	3396	49.07	48.32	48.32	48.32
4210	4652	1119.44	1064.81	1064.81	817.48
		1794.44	1650.39	1650.39	1403.0

\*Tract #4652 has 247.53 acres enrolled in the Conservation Reserve Program (CRP) paying \$9,883 annually and expiring 9/30/2020. 233.53 acres re-enrolled through 9/30/2030, paying \$7,258 annually.

\*Tract #3396 refers to the acres associated with DNR Lease No. 12-A95044

### FSA PROGRAM INFORMATION

Crop	Base Acres	Weighted Avg PLC Yield	Crop Election
Wheat	397.87	56	ARC COUNTY
Corn	358.73	166	ARC COUNTY
Barley	8.89	104	ARC COUNTY
	765.49		

## SOILS

The soil characteristics of the Thunder Ridge property create opportunity in crop choices and combinations, allowing for numerous varieties of crops to be planted on the Farm. The property consists primarily of variations of the Warden soil series which are used for irrigated cropland, grazing and some dryland cropland. The Warden Soil Series was formed from glacial outburst floods that crossed the Horse Heaven Hills some 12,000 to 18,000 years ago. Over the years, wind deposited loess has built the upper part of the soil profile, creating an outstanding, fertile soil profile with an unrestricted rooting depth, good drainage and moderate permeability. The Warden soils are well suited for the current crop plan but also provide the potential to diversify the crop selection with potential for permanent crops including orchards and vineyards. Over 85% of the Warden soils consists of 0-5% slopes (WdAB) with the remaining 15% of the Warden soils consisting of 15-30% slopes (WdE3) which are located in the valleys of the Farm. The balance of the property consists of the Finely Soil Series which are found on the floors of the valleys that ribbon across the Farm.

### TILLABLE SOILS MAP

Code	Soil Description	Acres	Percent of Field	NCCPI Legend	NCCPI Overall	2WaE3	
WdAB	Warden silt loam	1414.94	81.2%		17		U
WdE3	Warden silt loam	243.67	14.0%		7		A CEFE
FeC	Finley fine sandy loam	81.15	4.7%		8		WdAB WdE30
FfE	Finley stony fine sandy loam	2.24	0.1%		5		WdE3
		1742	Weighte	ed Avg	15.2		FeC WdAB
				WdE3 Wd	dab Wide	7	

Representative soil profile of the Warden series silt loam on a nearby farm. This soil covers more than 95% of the Farm.













