

#### How I Doubled Production Area in Two Years & Why Organic Certification Was Important

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2015 Great Plains Growers Conference

#### **About Me**

- Owner of Juniper Hill Farms, LLC
- 2014 graduate of ISU
  - Agricultural Business
  - Agronomy
  - Agricultural Entrepreneurship
- Agricultural Entrepreneur
- Interests in post harvest handling, marketing, storage, and distribution of local and regional foods.





- Raised in Lawrence, Kansas.
- Moved with family to rural Douglas County, Kansas in 1999.
- Became interested in agriculture as a kid.
- Began working at different agricultural operations in my area as a teenager.
  - Sweet corn, vegetables, cattle, row crops







- Became interested in starting my own farm.
- Purchased some old hay equipment with savings from summer jobs.
- Baled 20 acres of hay in 2006, and sold it quickly.
- Saw my opportunity to enter into farming!





- Expanded hay operations throughout high school.
- Graduated high school in 2009, and produced 10,000 small square bales that summer.
- Entered into vegetable operations in 2010 with the construction of our first high tunnel.
- Started schooling at Iowa State





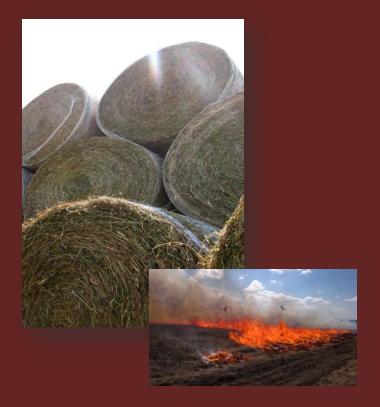
- Constructed second high tunnel in 2011, and grew on one acre.
  - Primarily marketed crops at farmers market's.
- Expanded to two acres of vegetables in 2012, and focused on direct sale to grocers and restaurants.
- Partial USDA Organic Certification of farm in 2012.
- Increased hay production to 500 acres.





#### Today we...

- Produce 900 acres hay and alfalfa.
  - 1,750 round bales and 3,000 square bales in 2014.
- Grow 5 acres of USDA Certified Organic vegetables.
  - Serving four grocery stores, eight restaurants, one wholesale grocer, and a food bank.
    - Harvested over 35,000 lbs of produce for fresh market distribution in 2014.
- Provide agricultural consulting services, hay and vegetable brokering services, and custom hire services to over 100 customers around the region.







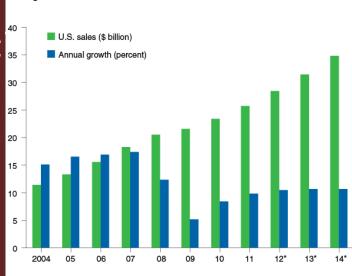
Crops We Grow

- Hay and alfalfa
- Small grains and soybeans
- Hops
- Vegetables
  - Tomatoes, potatoes, onions, bell peppers, cabbage, beets, head lettuce, leaf lettuce and greens, cilantro, kale, beets, radishes, zucchini, winter squash, and more!



# So Why Go Organic

- Organic sales in the US hit \$32.3
   Billion in 2013
  - 4% of total food sales in the US
- Projected market growth of 14% by 2018
- Organic consumers are increasingly mainstream
  - Tired of the "All Natural" label
  - Want to know that their food was raised right.
- If the market demands it, grow it!



U.S. organic food sales reached \$28 billion in 2012

\*Estimated.
Source: USDA, Economic Research Service using data from Nutrition Business Journal, 2013.





# Organic Matters!

- If you grow naturally, why not certified organically?
- Certified Organic produce opens new marketing doors.
- You can get that 20% premium you've been hearing about!

Certified Organic production is easier and less expensive than you think!





#### How are we doing this?

- Pre Season
  - Crop Planning
  - Labor Planning
  - Crop Budgets
  - Marking
- Infrastructure Planning
- Equipment Planning
- TAKING THE RISK!

- Post Season
  - Record Keeping Review
  - Sales Data Review
  - Follow-up Conversations
     With Our Customers
  - Revenue Tracking
  - Equipment Review
- Measuring how our risk paid off!

"It's not hard to plant an acre of Kale, it's hard to do everything els



# Record Keeping!

#### Keeping Good Records

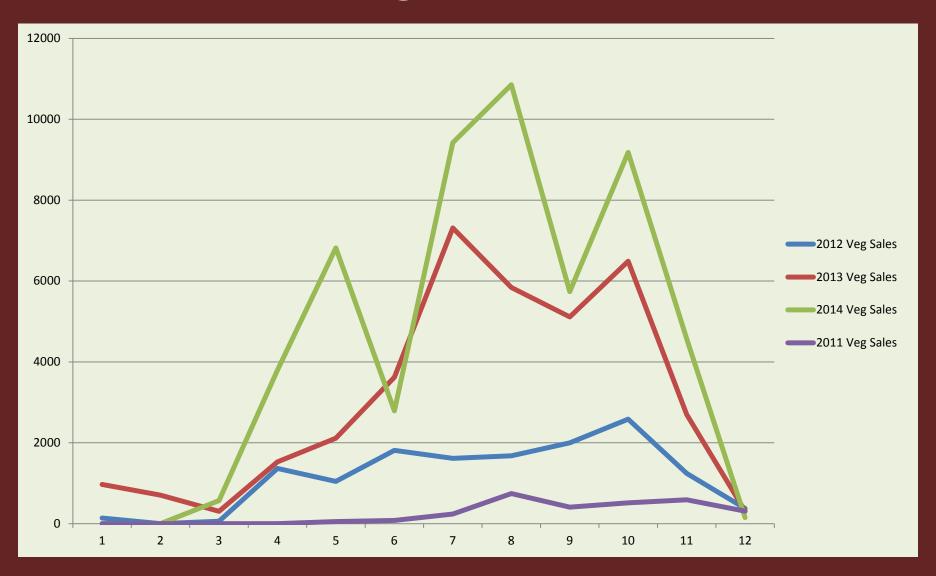
- Record keeping in the field, and in the office is key to your success!
- Without history, you cannot see the future.
- Yields of crops, sales, quantities available, peak harvests all are key items to track.



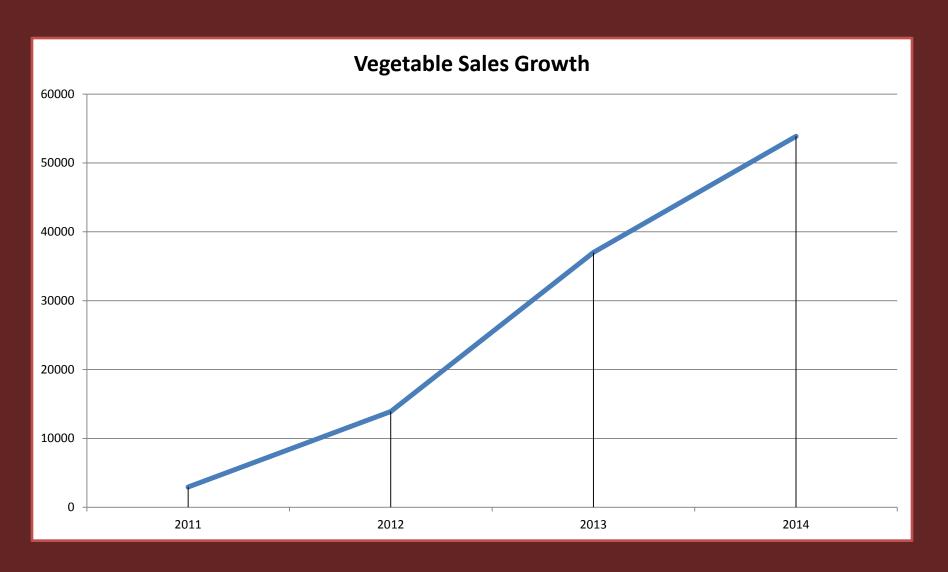
2013 JHF To	mato Plant	Count		As of 5/27/13
Variety	# GA1	# GA3	# HH1	<b>Total Plants</b>
Martha Washington	62	0	15	77
Cherokee Purple	31	31	15	77
Japanese Black	15	0	10	25
Striped German	16	0	9	25
Brandywine	0	16	10	26
German Johnson	0	15	0	15
Jasper (F1)	15	0	27	42
Yellow Mini	16	0	17	33
Defiant PHR (F1)	0	41	14	55
Monica	0	31	0	31
Oregon Spring	0	31	0	31
			TOTAL PLANTS	437



## JHF's Vegetable Growth

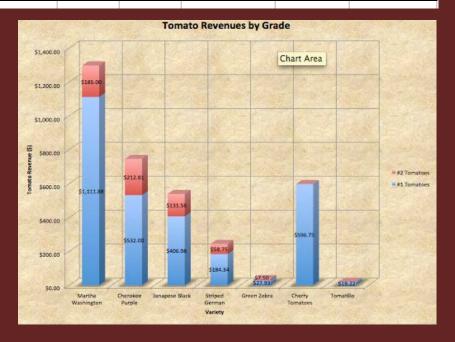


## JHF's Vegetable Growth



2012 Tomato	Yield Dat	a:						
Variety:	#1 Tomatoes Sold (lbs):	#2 Tomatoes Sold (lbs):	Total Sold (lbs):	% #1	% #2	% of Tomato Sales:	# of Plants:	Yield (lbs)/Plant:
Martha Washington	418.00	148.00	566.00	73.9%	26.1%	36.30%	30	18.87
Cherokee Purple	200.00	170.25	370.25	54.0%	46.0%	23.75%	30	12.34
Japanese Black	153.00	105.25	258.25	59.2%	40.8%	16.56%	15	17.22
Striped German	69.30	47.00	116.30	59.6%	40.4%	7.46%	8	14.54
Green Zebra	10.50	6.00	16.50	63.6%	36.4%	1.06%	8	2.06
Cherry Tomato	223.50	0.00	223.50	100.0%	0.0%	14.34%	16	13.97
Tomatillo	8.25	0.00	8.25	100.0%	0.0%	0.53%	8	1.03
Totals:	1082.55	476.50	1559.05	69.4%	30.6%		115	13.56







2013 To	mato Pri	ce Data:									
Variety:	#1 Tomatoes Harvested (lbs):	#2 Tomatoes Harvested (lbs):	Total Harvested (lbs):	% of Total Tomatoes Harvested:	% #1:	% #2:	#1 Avg \$/lb:	#2 Avg \$/lb:	Avg \$/lb:	# of Plants:	Yield (lbs)/Plant:
Martha Washington	576.68	772.80	1349.48	17.31%	42.7%	57.3%	\$2.59	\$1.23	\$1.81	77	17.53
Cherokee Purple	99.83	669.70	769.53	9.87%	13.0%	87.0%	\$2.59	\$1.23	\$1.41	77	9.99
Japanese Black	235.08	233.44	468.52	6.01%	50.2%	49.8%	\$2.59	\$1.23	\$1.91	25	18.74
Striped German	41.55	186.74	228.29	2.93%	18.2%	81.8%	\$2.59	\$1.23	\$1.48	25	9.13
Brandy-wine	34.08	199.51	233.59	3.00%	14.6%	85.4%	\$2.59	\$1.23	\$1.43	26	8.98
German Johnson	77.76	215.53	293.29	3.76%	26.5%	73.5%	\$2.59	\$1.23	\$1.59	15	19.55
Jasper (F1)	281.20	0.00	281.20	3.61%	100.0%	0.0%	\$3.00	\$0.00	\$3.00	42	6.70
Yellow Mini	328.29	0.00	328.29	4.21%	100.0%	0.0%	\$3.00	\$0.00	\$3.00	33	9.95
Defiant PHR (F1)	1743.55	808.46	2552.01	32.73%	68.3%	31.7%	\$1.47	\$1.23	\$1.39	55	46.40
Oregon Spring	155.95	227.52	383.47	4.92%	40.7%	59.3%	\$1.47	\$1.23	\$1.33	31	12.37
Monica	583.27	325.81	909.08	11.66%	64.2%	35.8%	\$1.51	\$1.23	\$1.41	31	29.33
Totals:	4157.24	3639.51	7796.75		53.3%	46.7%				437	17.84

Variety:	#1 Tomato Revenues:	#2 Tomato Revenues:	Total Revenues:	% of Revenue:	% #1:	% #2:	# of Plants:	Enocomic Yield per Plant (\$):
Martha Washington	\$1,493.60	\$950.54	\$2,444.15	19.2%	11.73%	7.46%	77	\$31.74
Cherokee Purple	\$258.56	\$823.73	\$1,082.29	8.5%	2.03%	6.47%	77	\$14.06
Japanese Black	\$608.86	\$287.13	\$895.99	7.0%	4.78%	2.25%	25	\$35.84
Striped German	\$107.61	\$229.69	\$337.30	2.6%	0.84%	1.80%	25	\$13.49
Brandy-wine	\$88.27	\$245.40	\$333.66	2.6%	0.69%	1.93%	26	\$12.83
German Johnson	\$201.40	\$265.10	\$466.50	3.7%	1.58%	2.08%	15	\$31.10
Jasper (F1)	\$843.60	\$0.00	\$843.60	6.6%	6.62%	0.00%	42	\$20.09
Yellow Mini	\$984.87	\$0.00	\$984.87	7.7%	7.73%	0.00%	33	\$29.84
Defiant PHR (F1)	\$2,563.02	\$994.41	\$3,557.42	27.9%	20.12%	7.81%	55	\$64.68
Oregon Spring	\$229.25	\$279.85	\$509.10	4.0%	1.80%	2.20%	31	\$16.42
Monica	\$880.74	\$400.75	\$1,281.48	10.1%	6.92%	3.15%	31	\$41.34
Totals:	\$8,259.77	\$4,476.60	\$12,736.37		64.85%	35.15%	437	\$29.15



Juniper Hill Farn	ns, LL	C Crop	Tracke	er												
Vegetable Type:		I	Radish			Year:	2014	Season:	Spring							
Plantings:																
		Loca	tion			S	oil Tem	p								Total Overall
Crop Variety:	Crop#	Field #	Bed #	Planting Date	IN	1"	3"	6"	Germ Date	IN	Harvest Start*	# of Days	Harvest Stop*	# of Days	Total Harvest	Days
Pink Beauty	1	HH2	3	15-Feb	KL	55	57		21-Feb	KL						
Pink Beauty	2	HH1	3	17-Feb	KL	61	61		22-Feb	KL						
											ļ					

Π,	Junip	er Hill Fa	rms, LLC	Crop Trac	ker									Т
							Year:							
	Vegeta	able Type:					Season:							
	Harve	sts*:												
			Har	vest					Qua	ality				
	Crop#	Harvest #	Date	Time	QTY	Type	Field Mgr	IN	(1-5)	% Loss	Lot#	Notes:	IN	
П														П
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														П

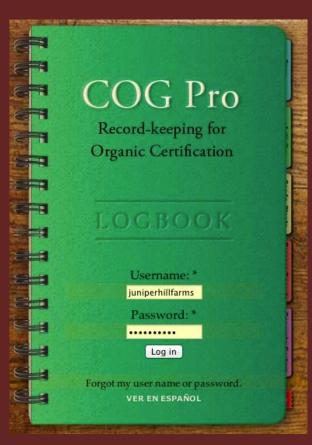


### Record Keeping Resources

- AgSquared Crop Planning
- COG PRO Organic Record Keeping
- Quickbooks Accounting, sales, expenses
- Excel
- Employee journals
- Additional Record Template examples available (ask me)









# Budgeting!

# Budgeting

 None of us want to do it, but it is the most important part of what we do!

 "Without the proper preparations, you will more than likely not meet your annual projections or make a meaningful return off of your investment."



June 14th, 2011



#### Labor

- Labor is the biggest cost of growing.
- Be efficient in your system.
- Purchase machinery and tools to increase operational efficiency.
- Limit downtime, and ensure that all members of the team are well trained.
- Make sure to follow labor laws, and to file and pay

all necessary taxes





High Tunnel Size (sq. ft.) (20x96) Utilization Approximate Original High Tunnel Cost

1,920	fl
84%	
\$6,400.00	

Receipts
Spring Leaf Lettuce
Spring Radishes
Cherry Tomatoes
Fall Leaf Lettuce
Fall Radishes
Late Fall Lettuce/misc
_

4-1				
				Yield Per Sq.
Yield (lb.)	Sq. Ft.	\$/Lb.	Total	Ft.
600.0	1080.0	\$6.05	\$3,630.00	0.56
510.0	600.0	\$1.00	\$510.00	0.85
2250.0	1760.0	\$2.50	\$5,625.00	1.28
550.0	1080.0	\$6.05	\$3,327.50	0.51
175.0	600.0	\$1.00	\$175.00	0.29
300.0	1080.0	\$6.00	\$1,800.00	0.28
			\$0.00	0.00
			\$0.00	0.00
1	6200.0		\$15,067.50	

Total Receipts

Annual Expenses

Seeds/Transplants Fertilizers

Miscellaneous Supplies

Water

Water Test

Irrigation Supplies

**Total Annual Expenses** 

Total

**	750.00
**	350.00
**	\$250.00
5	225.00
	\$0.00
	\$200.00

\$1,775.00

February - December **Labor Costs** 

Bed Preparation

General Maintenance

Planting

Pest Management

Harvest

Total Annual Expenses

Hours	\$/Unit	Total
30.00	\$20.00	\$600.00
80.00	\$20.00	\$1,600.00
30.00	\$20.00	\$600.00
15.00	\$20.00	\$300.00
120.00	\$20.00	\$2,400.00
275.00		\$5,500.00

Ownership Costs

Depreciation - Tunnel Depreciation - Plastic Cover

Total Ownership

Annual

\$374.00 \$75.00

\$449.00

**Total Costs** 

\$7,724.00 Tunnel \$4.02 Per Square Foot

Annual Returns Over Total Costs

Tunnel \$7,343,50 Per Square Foot \$3.82



Gross Per Sq. Ft.

> \$3,36 \$0.85

> \$3,20

\$3.08

\$0.29

\$1.67

\$0.00

\$0.00

\$2,43

Cherry Tomato Enterprise	Budget: Hightu	innel (does not incl	ude determinate pla	ints)	
ncome:					
180 Plants @ 14lbs/plant =	2,520 lbs	= 3,360 pts x \$2.25/pt =	\$7,560		
	0.75 lbs/pint				
/ariable Expenses:	our o' nooy pante			Income	
nputs				Revenue	\$7,560
Seed	\$115.80/300 =	\$0.386 x 180 =	\$69		\$7,560
Cover Crop Seed	15 lb @ \$1.50		\$23	Expenses:	4-,
Soil Start		flats/bag x 8 flats =	\$7	Inputs (V)	\$581
Greenhouse Lease	\$100 x .2	nota, bug x o nuta	\$20	Labor (V)	\$960
Flats	8 flats @ \$1.0	0/flat	\$8	Harvest (V)	\$2,305
Dripline	720' x \$0.0072		\$6	Fixed Exp	\$488
Irrigation (layflat, fittings		7	\$30	ee enp	\$4,334
Fertilizer		HEB, Microplex, et	\$250		+ 4004
Pesticide (OG)	Pyganic, TKO	rico, micropiex, et	\$75	Variable \$/pt	\$1.145
Twine	1 Role @ \$18/	role	\$18	Fixed \$/pt	\$0.15
Water	\$75.00		\$75	Total \$ / pt	\$1.290
	7.5.05	Total Inputs Cost	\$581	.o.u.y/pt	- TIESO
ahar		Total iliputs cost	2301	Green Marria	42.68%
abor Starts	2 hr @	\$20.00/hr	\$40	Gross Margin	42.08%
Bed Prep		\$20.00/hr	\$20		
Irrigation		\$20.00/hr	\$20		
Transplanting		\$20.00/hr	\$100		
Weaving		\$20.00/hr	\$120	Proj. Profit	\$3,227
Weeding		\$20.00/hr	\$80	Proj. Front	\$1.83/sqft
Other Labor		\$20.00/hr	\$400	rioj / sqit	\$1.05/ sqrt
Removal		\$20.00/hr	\$120		
Cover Crop		\$20.00/hr	\$60		
cover crop	5111 @	Total Labor Costs	\$960		
larvest		10101 20001 00313	<del>+200</del>		
Harvest Labor (50#/hr)	50 hr @	\$20.00/hr	\$1,000		
Packing Labor (80#/hr)		\$20.00/hr	\$600		
Packaging	\$0.15 x 3,360		\$504		
Storage	\$0.02/pt x 3,3		\$67		
Transport	\$0.04/pt x 3,3		\$134		
	, , p , .	Total Harvest Costs	\$2,305		
			7-7-3-		
	Tr	otal Variable Costs	\$3,846		
ixed Expenses:	- · · · · ·	Tanadic costs	<b>45,510</b>		
Land	1,920 sqft @ \$	300/acre	\$13		
Depreciation		o = 37.41/mo x 7mo	\$262		
Interest Exp	\$3,000 @ 5%		\$12.50		
Other	\$200	g c.mo	\$200		
	7200	Total Fixed Costs	\$487.50		
			-		

- Be liberal in your budgeting
- Think about every aspect of the crop.Remember that it
- is only a budget.
- Knowing your breakeven price will help you market your crops profitably.

#### Budgeting Resources

- Iowa State University Ag Decision Maker (AGDM)
  - Templates for all types of crops, including vegetables and hightunnel templates.
  - http://www.extension.iastate.edu/agdm/
- Kansas State University Enterprise Budgets
- Excel (easy to make)
- 'The Organic Farmer's Business Handbook' Richard Wiswall
- 'Wholesale Success' (4<sup>th</sup> edition) Jim Slama & Atina Diffley



# Pre-Season Marketing!

#### Size Matters

- The more you grow, the more markets you can enter.
- Ability to market higher quality products to more customers.
- Consistent supply translates to consistent customers.



#### Marketing

- You have to sell yourself!
  - Logos
  - Emails
  - Mailings
  - Social media
  - Brochures
  - Posters
  - Packaging and labeling
  - Invoicing
  - T-Shirts, hats, etc.
  - EVERYTHING!
- Be professional at all times. It matters!







- Agreements (Non-Contract)
  - Pros
    - Establishment of Price and Quantity needs
    - Helps to determine market availability
  - Cons
    - Because it is only an agreement, buyer might not purchase the amounts you roughly agreed to supply!



XXXXXXX Vegetable Agreements		]	Deliver	y Day:	Confin	m Friday,	Deliver	Friday A	M week	later		
Date Completed: 3/7/14												
			Case/Week			Price/Case						
	Item/	W.7370.40		Sales Volume			Sales Volume			Unit Pric	Notes:	
Crop/Variety:	Case	турс	Low	Med	High	High	Med	Low	Low	Med	High	110tcs.
Kale (Starbor F1)	24	В	3	4	5	\$30.00	\$32.50	\$35.00	\$1.250	\$1.354	\$1.458	
Cabbage		Ш										
Red (Super Red 80 F1)	14	pc	1	2			\$40.00			\$2.86		
Green (Storage No. 4 F1)	14	pc	1	2			\$30.00			\$2.14		
Brussel Sprouts (Nautic F1)	10	lb	1				\$25.00			\$2.50		
Beets (Merlin F1, Red Ace F1)	24	В		2	3	\$26.40	\$30.00	\$35.00	\$1.10	\$1.25	\$1.46	
Cilantro (Calypso)	30	В		1			\$30.00			\$30.00		
Encore Lettuce (Clamshell)*	6	pkg	8	10	20	\$13.00	\$14.00	\$15.00	\$2.17	\$2.33	\$2.50	5 oz clamshell
Ovation Greens (Clamshell)*	6	pkg	8	10	20	\$13.00	\$14.00	\$15.00	\$2.17	\$2.33	\$2.50	5 oz clamshell
Spring Mix (50/50 mix)	6	pkg	10	20	30	\$13.00	\$14.00	\$15.00	\$2.17	\$2.33	\$2.50	
Head Lettuce	24	head	8	10	20	\$27.00	\$30.00	\$33.00	\$1.13	\$1.25	\$1.38	
Radish												
Standard**	24	В	1	2			\$30.00			\$1.25		**1-2 cases total
Speciality (Red Meat, Nero Tondo)**	24	В	1	2			\$30.00			\$1.25		**1-2 cases total
Onions												
Green Onions	24	В	1	2			\$18.00			\$0.75		
Red Onions**	50	lb	1	2		\$47.50	\$50.00	\$55.00	\$0.95	\$1.00	\$1.10	
Sweet Yellow (Candy F1)**	50	lb	1	2		\$47.50	\$50.00	\$55.00	\$0.95	\$1.00	\$1.10	
Yellow (Walla-Walla)**	50	lb	1	2		\$47.50	\$50.00	\$55.00	\$0.95	\$1.00	\$1.10	
Potatoes												
Red (Co. Rose, Sangre 11)**	50	lb	2	6	10	\$45.00	\$47.50	\$50.00	\$0.90	\$0.95	\$1.00	**will buy 200-
Yellow (Yukon G, Ger. BB)**	50	lb	2	6	10	\$45.00	\$47.50	\$50.00	\$0.90	\$0.95	\$1.00	1000#/week all
Purple (Purp. Majesty)**	50	lb	2	6	10	\$45.00	\$45.00	\$50.00	\$0.90	\$0.90	\$1.00	together
Red White Blue Potato Medley	40	lb	1	3	5	\$60.00	\$65.00	\$70.00	\$1.50	\$1.63	\$1.75	
Tomatoes												
Cherry Tomatoes (see below)	12	pkg	4	5	10	\$24.00	\$30.00	\$31.20	\$2.00	\$2.50	\$2.60	Pints
Heirloom Tomatoes (TBD)***	20	lb	1	2				\$53.00				***every once in a while
Field Tomatoes (TBD)	20	lb	15	25	40	\$20.00	\$22.00	\$25.00	\$1.00	\$1.10	\$1.25	stage 2 preferred
Roma Tomatoes (TBD)	20	lb	2	5		\$23.00	\$25.00	\$31.00	\$1.15	\$1.25	\$1.55	stage 2 preferred
												JUNITER SHULL

#### Contract Growing

- Pros
  - Formal establishment of price and quantity demands
  - Secured market of crops grown

#### Cons

- Failure to meet contracted quantity or quality
- What if you cannot supply the contracted amount?
  - Need a clause for risk





#### Selling Through a Broker

- Pros
  - You do not have to spend all your time on the phone marketing your crop!
  - More time growing, less time marketing.

#### Cons

- Brokerage Fee
- Need for standarized packaging, and standardized case sizing
- Price may be unknown...





- Cold Calls and On-the-Fly Marketing
  - Pros
    - No commitments
    - Ability to supply whoever wants your produce
  - Cons
    - Can you sell it all?





# Start your marketing early

- Work to establish agreements and contracts with your current customers, as well as your new ones.
- Establish prices that are agreeable for both parties involved.
- Commit to a customer, and make

sure to not promis





# Anticipate Seasonal Demand

- But, be ready take price breaks to move your inventory.
- Know your markets, and what they desire.
- Market yourself well, and form long-lasting relationships with your customers.
- Keep up on consumer trends and industry changes.









### The Sustainable Difference!

Using increasingly sustainable practices, our first generation farm produces high quality crops, restores and manages crop and grassland areas, and works to promote longrange agricultural industry in and around Douglas County, Kansas.

The Right Choice!

### Grow your business with us!

Building long-term business relationships with our clients and their businesses.

We're there when you need us, and we're ready to work for you!

### What we do.

Products and Services designed to meet your needs!

Conventional and Certified

Organic hay, alfalfa, straw, small grains, hops, fruits, and vegetables.

**Custom farming** operations designed to fit your schedule.

**Agricultural Consulting** 

Services to help your business sustainably get the job done.









Ready for business? Contact us at (785) 840-4892











### Produced by Juniper Hill Farms, LLC

1547 N. 2000 Road | Lawrence, KS 660044 | (785) 840-4892 Certified Organic by ODAFF

ID: \_\_\_\_\_



















## Post Harvest Handling

- See your post harvest handling practices as a way to sell your products.
- Have a food safety plan in place.
- Deliver products as you would like to receive them.















# Additional Things to Consider

- Intensity of growing system desired.
- Insurance/Liability
- Location and Access to Markets.
- Other growers in area
- Access to water
- Quality of soils
- Labor pool





## The Potential

Crop (Year)	Revenue/Acre (non- irrigated)	Revenue/Acre (irrigated)
Corn (2012)*	\$326/acre	\$1,119/acre
Corn (2013)**	\$551/acre	\$678/acre
Soybeans (2012)*	\$302/acre	
Soybeans (2013)**	\$505/acre	
Vegetables (2012)^	\$13,500/acre	
Vegetables (2013)^	\$18,000/acre	

\*2012 - \$4.24/bu spot price (10/21/13 @ Ottawa Co-op); assumed yields under proper management: Corn - 130 bu/ac (non-irrigated), 200 bu/acre irrigated); soybeans @ \$12.63/bu spot price @ 40 bu/acre (non-irrigated)\$7.00/bu spot price (KS avg for 10/12); assumed yields under proper management: Corn – 46.6 bu/ac (non-irrigated), 159.9 bu/acre irrigated); soybeans @ \$14.40/bu @ 21 bu/acre (non-irrigated). ^JHF Averages per acre



# The Future of Juniper Hill Farms

- Expansion of vegetable operations from to four acres.
- Entry into Kansas City markets.
- Expansion of hay operation to 900 1,000 acres.
- Increase in employment opportunities.
- Increase in partnership with other growers.





# Thank you!



Questions?

