



# | **THREE FISH FERTILIZER**

## **South Dakota State University 2022 Executive Summary**

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# THREE FISH FERTILIZER

## BUSINESS PROPOSITION

### INTRODUCTION

Native Americans, who were the forefathers of North American agriculture, would place three fish by every corn seed they planted in order to fertilize the ground and ensure optimal growth. Three Fish Fertilizer works to use the waste products of commercial fishermen by utilizing carp, an invasive species, to create an organic fertilizer that is great for the environment and cuts down on the invasive fish population in the United States. In 2018 alone, the U.S. Fish and Wildlife Service allocated \$10.4 million to aid in the removal of these invasive species (1). Carp have the potential to grow and reproduce at an exponential rate, therefore pushing out native species (2). Three Fish Fertilizer takes this issue and turns it into a great organic option for growers wanting to take their production to the next level.

### BENEFIT TO PRODUCER

Three Fish Fertilizer provides a chemically stable and organic source of nutrients and biological organisms that are essential to plant growth. With a nitrogen, phosphorus and potassium (NPK) ratio of 5-5-6.5, Three Fish Fertilizer is one of the most balanced sources of organic fertilizer on the market. This creates exceptional value for the producer while helping restore our nation's waterways to their natural state.

### MARKET SEGMENTATION

Produce growers are increasingly aware of the benefits of organic production in the current economic environment and Three Fish Fertilizer aligns with these values. Our product will cater to large greenhouse producers as well as small hobby gardeners alike.

### NEED FOR PRODUCT

Invasive carp species have caused havoc throughout the United States. Each female carp has the capability to produce 1 million eggs annually, leading to extreme carp populations, causing carp to outcompete native species for food and habitat (2). Along with this, the production of commercial fertilizers is detrimental to the environment (3). Three Fish Fertilizer offers a sustainable solution to both issues at hand. Our product lessens the extreme population of Asian and common carp through incentivizing commercial fishing, while offering a clean, green and sustainable solution to the fertilizer crisis.

### MISSION

Our mission is to capture and process invasive carp to provide a sustainable source of nutrients for organic producers while regenerating our nation's waterways.

### KEY PLANNING ASSUMPTIONS

- The volume of carp will not run out even after commercial fishing takes place
- Continued growth in organic crop production and demand
- Hobby farming will continue to increase as a result of COVID-19

### GOALS + OBJECTIVES

The overall goal of producing Three Fish Fertilizer is to lower the invasive carp population, that is known to devastate local ecosystems, while offering a nutrient-dense, organic fertilizer for environmentally conscious producers.





# MARKET ANALYSIS

## MARKET POTENTIAL, TRENDS + SIZE

- The organic fertilizer industry is a fast growing industry, with the U.S. organic fertilizer market currently valued at \$1.1 billion and estimated to reach \$2.5 billion by 2026 (4)
- In 2020, the U.S. greenhouse industry was valued at \$4 billion and is expected to grow annually at a rate of 6.2% in the next 6 years (5)



## OTHER KEY FACTORS

Three Fish Fertilizer will be sold throughout the eastern United States and made in Kentucky. Therefore abiding by the following USDA, DNR, and local regulations and standards:

- Certified USDA Organic
- Application rate
- Best before date
- Bilingual packaging
- USA flag denoting our product is made in America

## STRATEGY

Three Fish Fertilizer's product is derived from an invasive fish species that is wreaking havoc on the natural waterways of the U.S. We are centrally located in Kentucky where there is an ample supply of carp from commercial fisherman. Here, we are able to add value to the supply chain by buying unwanted fish and turning it into a marketable consumer fertilizer. Our main target market is the eastern United States where the consumer demand is the highest. Our future expansion of production looks to source from neighboring states struggling with carp infestation and to expand sales to the rest of the U.S.

## CUSTOMER PROFILE

### DAISY BLOOM

- 20 years old
- From Louisville, Ky.
- Owns a small garden to grow her own produce
- Strives to raise and consume homegrown organic produce



### DAVE ORCHARD

- 58 years old
- From Bethel, Conn.
- Owns a 20 acre apple orchard & pumpkin patch
- Wants to increase yield without using chemicals



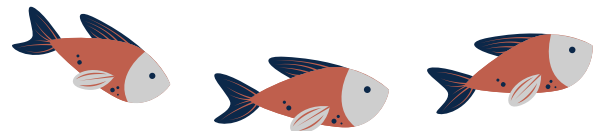
### BILL FRESH

- 35 years old
- From Adamsville, Tenn.
- Owns a greenhouse and grows lettuce commercially
- Looking to increase overall production while incorporating organic labeling



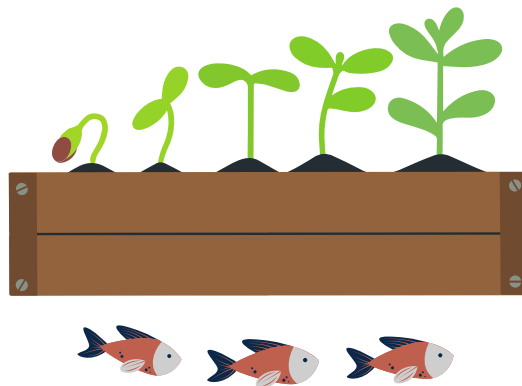
## TARGET MARKET

Three Fish Fertilizer will target both large and small organic growers that are involved with greenhouse, orchard and/or garden production on the eastern side of the United States.



## SWOT ANALYSIS

<b>S</b> <ul style="list-style-type: none"> <li>• Benefits the environment</li> <li>• Large target market</li> <li>• Low input costs</li> <li>• High nutrient content in organic matter</li> </ul>	<b>W</b> <ul style="list-style-type: none"> <li>• Slight odor of decomposing fish</li> <li>• Cost to ship product due to weight</li> </ul>
<b>O</b> <ul style="list-style-type: none"> <li>• Urban consumer demand for local organic produce</li> <li>• Capitalize on organic branding</li> <li>• Conservation grants that encourage carp harvest</li> </ul>	<b>T</b> <ul style="list-style-type: none"> <li>• Organic certification specifications</li> <li>• Competitors with similar products</li> <li>• Unpredictable supply of carp</li> <li>• Transportation regulations between states</li> </ul>



## COMPETITIVE ANALYSIS

Company name/ N-P-K ratio	Three Fish Fertilizer 5-5-6.5	Alaska Sea Ag - Alaska Fish Bone Fertilizer 5-8-0.4	Indian River Organics - Liquid Fish Fertilizer 2-3-1	Sigma Marine Products - Fish Powder Fertilizer 6-1-0.5	The Grow Co Organic Fish Fertilizer 2-3-1
Organic Fertilizer	X	X	X	X	X
Dry fertilizer	X				
Odor free	X		X	X	X
All-natural fertilizer	X		X	X	X

# ACTION PLAN

## PROMOTION



### INFLUENCERS

- Gardenerd
- The Joe Gardener Show
- The Organic Gardener



### PUBLICATIONS

- Birds & Blooms
- Better Homes & Gardens
- Fine Gardening



### CATALOGS

- Gurney's Seed & Nursery
- Burpee



### DIGITAL

- Social Media
- Website: threefishfertilizer.com
- Search Engine Optimization (SEO)
- Pay-Per-Click (PPC)



### EXPOS/TRADE SHOWS

- Central Kentucky Home & Garden Show
- SE Connecticut Home & Garden Show
- Home & Garden Show - Columbus, Ohio
- Philly Home & Garden Show
- Orlando Home & Garden Show

## PRODUCT

Three Fish Fertilizer is an organic fertilizer that is made from the compost of the invasive carp species. This product offers a mixture of high levels of beneficial microbes and nutrients.

## PRICE

Three Fish Fertilizer is priced at \$24 per 15 pound bag or \$0.625 per pound. Our product will be sold to retail stores at \$18, reflecting the industry average markup of 25%.

## PLACE



**HEADQUARTERS:** Paducah, Ky.

**RESEARCH:** University of Kentucky - Lexington

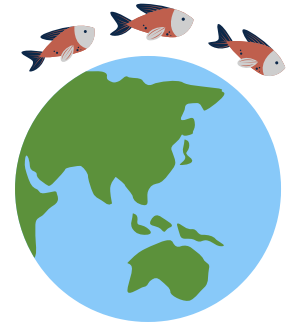
Three Fish Fertilizer will target small greenhouse growers, gardeners and orchard farmers through our website at threefishfertilizer.com as well as large department stores, such as Home Depot and Lowes. Our market will expand from the southeastern region of the United States to the entire eastern side of the United States by Year 3.

# MEASURING + MONITORING

Goals	Measurement	If Achieved	If Failed
Maintain 90% customer satisfaction.	Utilizing QR code surveys on packaging.	Customer testimonials will be advertised and promotions will be continued.	Reevaluate and address product weaknesses.
Reach 20% of total sales via our website by Year 2.	Tracking online sales.	Push online sales goal to 40% by Year 3.	Change our online marketing dynamics to target different locations and at different times.
Achieve brand awareness of 10% in our target market by the end of Year 1.	Quarterly surveys will be sent out.	Increase brand awareness to 15% by Year 2.	Reevaluate our strategy and determine a new way to market our product.

# FINANCIALS

Income Statement	Year 1	Year 2	Year 3
Suggested Retail Price	\$24.00	\$24.00	\$24.00
Units Sold	285,000	320,000	451,250
<b>Gross Sales</b>	<b>\$6,840,000.00</b>	<b>\$7,680,000.00</b>	<b>\$10,830,000.00</b>
Sales Expenses	\$1,607,400.00	\$1,689,600.00	\$2,057,700.00
<b>Net Sales</b>	<b>\$5,232,600.00</b>	<b>\$5,990,400.00</b>	<b>\$8,772,300.00</b>
COGS	\$1,450,815.91	\$1,628,986.29	\$2,297,125.19
<b>Gross Profit</b>	<b>\$3,781,784.09</b>	<b>\$4,361,413.71</b>	<b>\$6,475,174.81</b>
Wage Expenses	\$780,000.00	\$930,000.00	\$1,005,000.00
Marketing Expenses	\$639,480.00	\$731,340.00	\$731,700.00
Administrative Expenses	\$697,837.50	\$302,700.00	\$327,309.38
Total Expenses	\$3,568,133.41	\$3,593,026.29	\$4,361,134.57
<b>Net Profit</b>	<b>\$1,664,466.59</b>	<b>\$2,397,373.71</b>	<b>\$4,411,165.43</b>
Net Profit Margin	46.65%	66.72%	101.15%
Marketing ROI	0.00%	14.86%	330.50%
Gross Margin	\$3,781,784.09	\$4,361,413.71	\$6,475,174.81



Marketing Budget	Year 1	Year 2	Year 3
<b>Influencers</b>	<b>\$1,980.00</b>	<b>\$2,340.00</b>	<b>\$2,700.00</b>
Gardenerd	\$900.00	\$990.00	\$1,170.00
The Joe Gardener Show	\$630.00	\$810.00	\$900.00
The Organic Gardener	\$450.00	\$540.00	\$630.00
<b>Publications</b>	<b>\$568,100.00</b>	<b>\$659,600.00</b>	<b>\$659,600.00</b>
Birds & Blooms	\$71,500.00	\$143,000.00	\$143,000.00
Better Homes & Gardens	\$476,600.00	\$476,600.00	\$476,600.00
Fine Gardening	\$20,000.00	\$40,000.00	\$40,000.00
<b>Expos/Trade Shows</b>	<b>\$7,000.00</b>	<b>\$7,000.00</b>	<b>\$7,000.00</b>
Central KY Home & Garden Show	\$1,400.00	\$1,400.00	\$1,400.00
SE CT Home & Garden Show	\$1,500.00	\$1,500.00	\$1,500.00
Ohio Home & Garden Show	\$1,200.00	\$1,200.00	\$1,200.00
Philly Home & Garden Show	\$1,100.00	\$1,100.00	\$1,100.00
Orlando Home & Garden Show	\$1,800.00	\$1,800.00	\$1,800.00
<b>Digital</b>	<b>\$62,400.00</b>	<b>\$62,400.00</b>	<b>\$62,400.00</b>
Social Media	\$24,000.00	\$24,000.00	\$24,000.00
Search Engine Optimization (SEO)	\$14,400.00	\$14,400.00	\$14,400.00
Paid-Per-Click (PPC)	\$24,000.00	\$24,000.00	\$24,000.00
<b>Total Advertising Expenses</b>	<b>\$639,480.00</b>	<b>\$731,340.00</b>	<b>\$731,700.00</b>

## CONCLUSION

As the market for organic produce continues to grow, Three Fish Fertilizer provides the solution for consumers who are ready to revolutionize the way they nourish crops. Not only does our fertilizer increase yields, it tackles another issue of cutting down on the invasive carp population. Three Fish Fertilizer takes a big problem for U.S. waterways and turns it into an organic solution for a variety of growers looking to take their yields to the next level.

# WORKS CITED

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