

Trade Adjustment Assistance Training:

*Improving the Bottom Line
Through Quality*

*Presented by:
Amber Von Harten*

S.C. SEA GRANT
EXTENSION
PROGRAM


Sea Grant
S.C. Sea Grant Consortium
CLEMSON[®]
EXTENSION



GOAL:

MAXIMIZING REVENUES
by
PRODUCING
TOP-QUALITY SHRIMP
for the
U.S. MARKET

*Working smarter,
not harder,
for more profits!*



Market Competition:

- Imports vs. Domestic shrimp
- Shrimp valued by,

PRODUCT CONDITION

- *Odor*
- *Texture*
- *Dehydration*
- *no black-spot*
- *no chemical abuse*

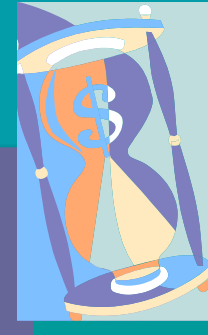


PACK STYLE

- *weights, counts & uniformity*
- *no damaged tails or pieces*
- *no soft-shells*



Marketing: *The time is now*



COMMODITY MARKET

FACTS:

- U.S is high-cost producer/processor = < Advantages
- Must spend more to meet expectations = little incentive/reward
- Flooded by imports

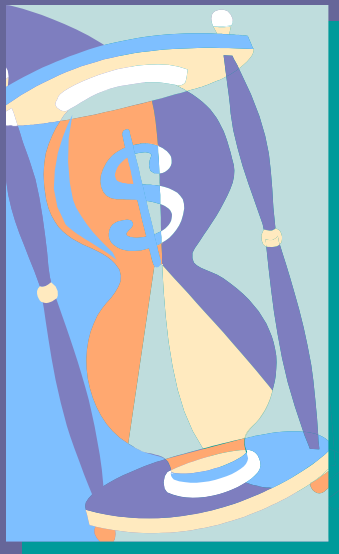
NICHE MARKET

FACTS:

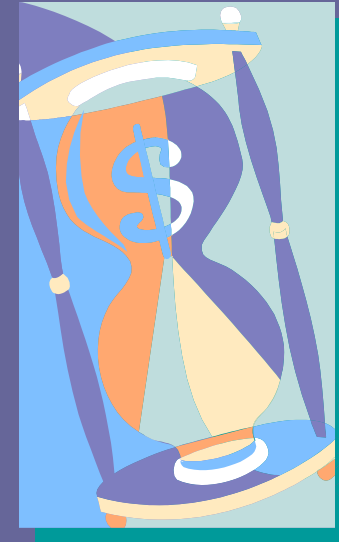
- Stresses unique attributes
- Adheres to stringent quality standards
- Brand protection
- Typically generates higher prices through supply chain
- Examples: Vidalia Onion, Angus Beef

Marketing: *The time is now*

Commodity
Market



vs.



Niche
Market

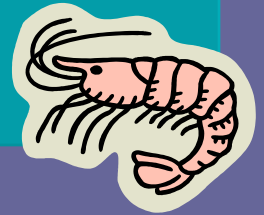
Quality: *What conditions affect it?*

- Tow times
- Back-deck activities once shrimp are landed:
 - culling & heading
 - washing / dipping
 - proper use of clean ice and stowing below deck
- **With freezer boats:**
 - bagging or boxing
 - proper use of on-deck brine freezing
 - stowing IQF shrimp below deck



- Offloading
- Processing
- Mishandling at retail level

Steps to Improve Quality:

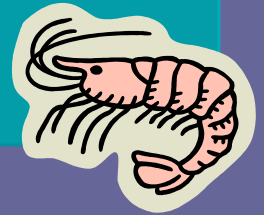


1) Reduction in Tow Times:

- Helps reduce physical damage
- Minimizes bacterial growth
- Reduces chance for black spot
- Less catch = Less sort time
- Minimizes bacterial growth

Monthly Interval	Recommended # of drags & the maximum time
January - April	3-drags/night (maximum)
May - June	3-hour drags or less
July - September (when surface water is above 80° F)	2-hour drags
October - December	3-hour drags or less

Steps to Improve Quality:

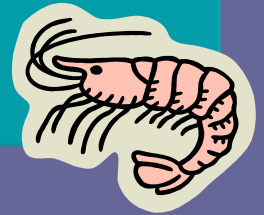


2) Back-deck processing:

- Keep supplies/equipment organized for processing
- Continually process portions of catch (culling/heading)
- Washing and pre-chill ice slush bath for ~15 minutes
- Proper use of dip (sodium bisulphite) treatments to prevent black spot (USE and STORE WITH CAUTION!!)

Ratio used in ice slush bath:	Ratio used in deck temperature bath:
1 cup dip/ 10 gallons H ₂ O	1.5 cups dip/10 gallons H ₂ O (agitate for only 1-minute)

Steps to Improve Quality:

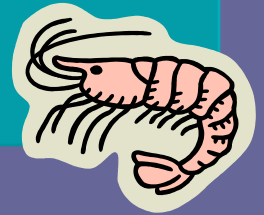


2) Back-deck processing (continued):

- Proper use of Everfresh®
 - One, 200-gram pouch per 25 gallons of H₂O
 - Treats 500 – 600 pounds of shrimp (make fresh batch)
 - Works best at deck temperature and with clean sea water
 - Agitate batches of shrimp for ~2-minutes, drain, and ice
- ICE, ICE, ICE !!
 - Layer shrimp in ice with 2-lbs of ice to 1-lb of shrimp
 - Maintain at 33°F

Storage Temperature	Resulting Shelf-life
68°F (20°C)	1 day
50°F (10°C)	4 days
32°F (0°C)	13 days

Steps to Improve Quality:



3) Other steps (Freezer Boats):

- Proper Brine Freezing methods – The “20-minute Rule”
- Charging the Brine system BEFORE each trip
- Re-charging the Brine system during the trip
- Proper loading of the Brine Freezer

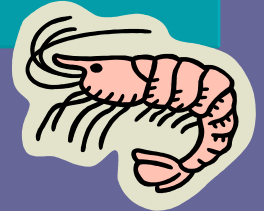
Ingredients	Proportions
Salt	2.53 lb. / gal.
Dip powder	0.074 lb. / gal.
Corn syrup or Corn syrup solids	0.12 gal. / gal. 1.19 lb. / gal.

New Shrimp Quality Program:

The logo for Wild American Shrimp, featuring the words "WILD AMERICAN SHRIMP" in a stylized, white, serif font against a dark blue background.

Wild American Shrimp, Inc.

(WASI) <http://www.wildamericanshrimp.com/>



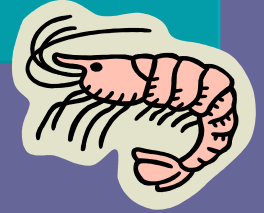
WHAT IS WASI ? ?

- Marketing arm of the Southern Shrimp Alliance formed to create awareness for Wild American shrimp.
- Represents the seafood industry in eight southern states: AL, FL, GA, LA, MS, NC, SC and TX.

GOALS

- Increase public awareness and to educate the consumer about the advantages of choosing seafood that grows naturally, is caught fresh and supports the U.S. seafood industry.
- Devote its resources to raising public awareness about the many health benefits of Wild American shrimp.
- Direct marketing through grocery store promotions, restaurant programs, public relations, media advertising and other efforts.

Wild American Shrimp, Inc.



Wild American Shrimp Certification Program

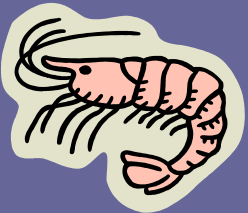
- Certifies that warm-water shrimp, wild-caught from U.S. coastal waters, meets certain standards for quality and consistency.
- Once certified, products can be labeled with the distinctive Wild American™ Certification Marks, including the Wild American™ logo.

Wild American Shrimp, Inc.

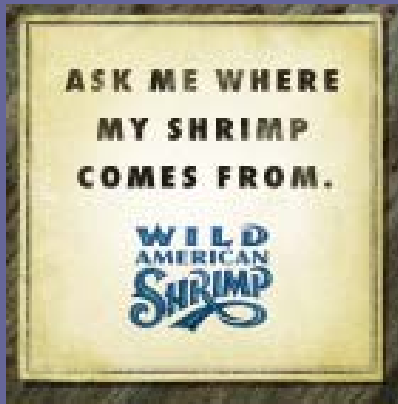


Certification Standards of Program:

- *Adopted by Wild American Shrimp, Inc.*
- Require shrimp meet minimum standards for:
 - Flavor,
 - Odor, and
 - Physical defects



Wild American Shrimp, Inc.



How to Participate in the Program:

- Sign agreement
- Contact authorized WASI inspection agent
- Shrimp passes inspection = WASI certification awarded (right to use WASI logos on WASI certified shrimp)
- Separate certification agreements
 - Processors & Distributors
 - Retailers & Restaurants

Wild American Shrimp, Inc.

Sampling

- Under 110 count per pound = representative 3-pound sample unit
- Flavor and Odor
- Physical Defects:
 - Dehydration
 - Uniformity of size
 - Black spots, improperly headed (throats), & improperly cleaned end
 - Pieces of shrimp, broken or damaged shrimp
 - Unusable material
 - Unacceptable shrimp and head
 - Improperly peeled and inadvertently peeled shrimp
 - Improperly deveined shrimp
 - Texture

Wild American Shrimp, Inc.

Sampling (continued):

- Characteristics shall be examined
- Defects assigned a numeric value
- Uses Defect Valuation Table
- Takes into account the market form of the shrimp (e.g., heads on or headless, tail fins attached or unattached, peeled, deveined, or various combinations thereof).
- Designated numeric value of 0 = no physical defects.
- Cumulative Defect Valuation of 15 or less = meets minimum standards.

Wild American Shrimp, Inc.

Characteristic to be Examined	Defect points assigned		
Shrimp count per pound	Up to 40	41-70	71-130
1. Dehydration:			
Slight	3	3	3
Moderate	8	8	8
Excessive	16	16	16

Wild American Shrimp, Inc.

Characteristic to be Examined	Defect points assigned		
Shrimp count per pound	Up to 40	41-70	71-130
2. Uniformity of size:			
Weight ratio	1.75-2.00	1.75-2.00	2.00-4.00
Defect points	4	4	4
Weight ratio	2.01-2.50	2.01-2.50	4.01-6.00
Defect points	8	8	8
Weight ratio	>2.50	>2.50	>6.00
Defect points	16	16	16

Wild American Shrimp, Inc.

Characteristic to be Examined	Defect points assigned		
	Up to 40	41-70	71-130
Shrimp count per pound			
2. Uniformity of size:			
Weight ratio	1.75-2.00	1.75-2.00	2.00-4.00
Defect points	4	4	4
Weight ratio	2.01-2.50	2.01-2.50	4.01-6.00
Defect points	8	8	8
Weight ratio	>2.50	>2.50	>6.00
Defect points	16	16	16

EXAMPLE

For 1-pound of 16-20 count shrimp:

- 10% of largest shrimp (16 count) = weighs 0.125 pounds
- 10% of smallest shrimp (20 count) = weighs 0.100 pounds

$$\text{Weight ratio} = \frac{\text{Weight of largest shrimp}}{\text{Weight of smallest shrimp}} = \frac{0.125}{0.100} = 1.25$$

- No defect points assigned

Wild American Shrimp, Inc.

Characteristic to be Examined	Defect points assigned		
Shrimp count per pound	Up to 40	41-70	71-130
3. Black spots, throats, and improperly cleaned ends:			
Percent by weight	1.00-4.00	1.00-4.00	2.00-6.00
Defect points	3	3	3
Percent by weight	4.01-8.00	4.01-8.00	6.01-10.00
Defect points	5	5	5
Percent by weight	8.01-16.00	8.01-16.00	10.01-20.00
Defect points	16	16	16
Each additional percent by weight	8.00	8.00	10.00
Defect points	16	16	16

Wild American Shrimp, Inc.

Characteristic to be Examined	Defect points assigned		
Shrimp count per pound	Up to 40	41-70	71-130
4. Pieces, damaged shrimp, and broken shrimp:			
Percent by weight	1.50-2.00	2.00-4.00	2.00-4.00
Defect points	4	4	4
Percent by weight	2.01-4.00	4.01-6.00	4.01-7.00
Defect points	8	8	8
Percent by weight	4.01-8.00	6.01-12.00	7.00-14.00
Defect points	16	16	16
Each additional percent by weight	4.00	6.00	7.00
Defect points	16	16	16

Wild American Shrimp, Inc.

Characteristic to be Examined	Defect points assigned		
	Up to 40	41-70	71-130
Shrimp count per pound			
5. Unusable material (legs, loose shell, antennae, flippers, or extraneous material:			
Percent by weight	0.1-0.2	0.1-0.2	0.1-0.2
Defect points	6	6	6
Percent by weight	0.21-0.4	0.21-0.4	0.21-0.4
Defect points	16	16	16
Each additional percent by weight	0.2	0.2	0.2
Defect points	16	16	16

Wild American Shrimp, Inc.

Characteristic to be Examined	Defect points assigned		
Shrimp count per pound	Up to 40	41-70	71-130
6.Unacceptable shrimp and heads:			
Percent by weight	1.00-2.50	1.00-2.50	1.00-2.50
Defect points	3	3	3
Percent by weight	2.51-5.00	2.51-5.00	2.51-5.00
Defect points	6	6	6
Percent by weight	5.01-10.00	5.01-10.00	5.01-10.00
Defect points	16	16	16
Each additional percent by weight	5.0	5.0	5.0
Defect points	16	16	16

Wild American Shrimp, Inc.

Characteristic to be Examined	Defect points assigned		
	Up to 40	41-70	71-130
Shrimp count per pound			
7. Improperly peeled and inadvertently peeled shrimp:			
Percent by weight	2.00-6.00	2.00-6.00	4.00-9.00
Defect points	3	3	3
Percent by weight	6.01-10.00	6.01-10.00	9.01-14.00
Defect points	8	8	8
Percent by weight	10.01-20.00	10.01-20.00	14.01-28.00
Defect points	16	16	16
Each additional percent by weight	10.00	10.00	14.00
Defect points	16	16	16

Wild American Shrimp, Inc.

Characteristic to be Examined	Defect points assigned		
	Up to 40	41-70	71-130
Shrimp count per pound			
8. Improperly deveined shrimp:			
Percent by weight	1.00-3.00	1.00-6.00	6.00-9.00
Defect points	3	3	3
Percent by weight	3.01-5.00	6.01-10.00	9.01-12.00
Defect points	8	8	8
Percent by weight	5.01-10.00	10.01-20.00	12.01-24.00
Defect points	16	16	16
Each additional percent by weight	5.00	10.00	12.00
Defect points	16.00	16.00	16.00

Wild American Shrimp, Inc.

Characteristic to be Examined	Defect points assigned		
Shrimp count per pound	Up to 40	41-70	71-130
9. Texture:			
Slight	2	2	2
Moderate	5	5	5
Excessive	16	16	16

Wild American Shrimp, Inc.

Characteristic to be Examined	Defect points assigned		
	Up to 40	41-70	71-130
1. Dehydration:	0	3	0
2. Uniformity of size:	0	0	8
3. Black spots, throats, and improperly cleaned ends:	0	0	32
4. Pieces, damaged shrimp, and broken shrimp:	0	4	8
5. Unusable material (legs, loose shell, antennae, flippers, or extraneous material):	0	6	0
6. Unacceptable shrimp and heads:	0	0	3
7. Improperly peeled and inadvertently peeled shrimp:	0	0	0
8. Improperly deveined shrimp:	0	0	0
9. Texture:	0	0	0
TOTAL DEFECT POINTS:	0	13	51



Summary:

Opportunities for increasing profits through increase in quality:

- Decreased tow times
- Streamlined back deck procedures
- Proper use of dips
- Proper use of ice/freezing
- WASI certification program
- Assuring WASI quality standards on portion of catch

RESOURCES:

Clemson University Shrimp Partnership

<http://www.clemson.edu/scshrimp/index.htm>

Chip Boling, Clemson Extension, 843-722-5940

Shrimp Quality Extension Associate, coming soon!

WASI

<http://www.wildamericanshrimp.com/>

Eddie Gordon, Executive Director, 843-971-3022

Clay Cable, SC State Representative, 843-886-6780

S.C. Sea Grant

www.scseagrant.org

Amber Von Harten, Fisheries Specialist, 843-470-3655