

ITB 32801-13992
Fish Food; TWRA
Specifications

Scope: This solicitation is for the procurement of a two (2) year contract for the purchase of fish food as specified below. The Contract shall be awarded to one vendor for all specified feed. The Contract shall be utilized by all TWRA hatcheries listed below and fish feeders in select lakes throughout the state.

A. Delivery Requirements:

1. Delivery shall be made during regular business hours. Regular business hours are Monday-Friday, 8:00 AM – 4:00 PM, CST Time.
1. No deliveries shall be made on State holidays as declared by the Commissioner of the Tennessee Department of Human Resources (“DOHR”).
2. Contractor shall notify the State at least twenty-four (24) hours in advance of expected delivery.
3. A one-hour notification shall be required for Tellico State Fish Hatchery to set up an escort by a state employee both in and out of the Cherokee National Forest on River Road. Any delivery without an escort shall be subject to citations from the Forest Service Law Enforcement Officers.
4. All hatcheries can off-load regular pallets up to two thousand (2,000) pounds or nine hundred seven (907) kilograms in weight from the tailgate of enclosed trailers or the side of flatbed trailers. Tailgate delivery shall be provided if feed is shipped in an enclosed trailer. TWRA staff will assist with unloading.
5. Feed delivered shall be the size of feed ordered.
6. Feed shall be packaged in moisture resistant bags weighing forty-four (44) pounds or twenty (20) kilograms or fifty (50) pounds or 22.73 kilograms.
7. All hatcheries will make an effort to coordinate ordering to reduce shipping costs.
8. Delivery shall be made within thirty (30) days of purchase order receipt by the Contractor.
9. The fish feed shall be shipped F.O.B. Delivery to one of the following locations with each order that is placed.
10. All delivery charges shall be included in prices bid.

a. Site # 1: Buffalo Springs Trout Hatchery
275 Hatchery Lane
Rutledge, Tennessee 37861
Roger Bitz, Manager
PH: 423/828-5263
Cold Water Hatchery

b. Site # 2: Erwin Trout Hatchery

475 Banner Springs Road
Erwin, Tennessee 37650
Corey Jones, Manager
PH: 423/743-4842
Cold Water Hatchery

- c. Site # 3: Tellico Hatchery**
3193 River Road
Tellico Plains, Tennessee 37385
Jon Ellis, Manager
PH: 423/253-2661
Cold Water Hatchery
- d. Site # 4: Eagle Bend Fish Hatchery**
1201 Charles Seivers Blvd
Clinton, Tennessee 37716
Chris Morton, Manager
PH: 865/457-5135
Warm Water Hatchery
- e. Site # 5: Morristown Fish Hatchery**
4994 Fish Hatchery Road
Russellville, Tennessee 37860
PH: 423/586-7971
Jessica Roe, Manager
Warm Water Hatchery
- f. Site #6: Humboldt Hatchery**
221 State Route 152
Humboldt, Tennessee 38342
Tom Pratt, Manager
PH: 731/784-3889
Warm Water Hatchery
- g. Site # 7: Springfield Hatchery**
4300 Draughon Road
Springfield, Tennessee 37172
Joey Austin, Manager
PH: 615/382-2428
Warm Water Hatchery
- h. Site # 8: Normandy Hatchery**
380 Huffman Road

Normandy, Tennessee 37360
Nathan Singer, Manager
PH: 931/857-3417
Warm Water Hatchery

- i. Site # 9: Flintville Hatchery**
65 Fish Hatchery Road
Flintville, Tennessee 37335
Steven Day, Manager
PH: 931/937-8381
Cold Water Hatchery

B. General Information

1. The feed shall be manufacturer's off-the-shelf, closed-formula commercial fish feed that matches or exceeds the following specifications.
2. Fish feed shall be milled no more than one hundred eighty (180) days prior to delivery and contain vitamin and trace mineral supplements in amounts equal to or greater than industry standards for closed-formula feeds. Feed shall be formulated to meet the minimum vitamin and mineral content for a period of not less than one hundred eighty (180) days from delivery.
3. Fish meal shall be increased or decreased depending upon protein content of the meal. However, feed formulation shall contain the overall minimum protein percentage listed for each item.
4. Quantity of added oil shall be adjusted upward or downward so that the finished feed shall contain not less than the percentage of crude fat specified dependent on the fat content of the raw ingredients.
5. Wheat flour, wheat middling, or equivalent filler shall be used to compensate for differences in lipid and protein concentration to maintain target protein energy ratios.
6. The digestible carbohydrate protein of the diet shall not exceed 15% of the dietary energy for finished fish feeds. Feed formulations for other species shall contain higher levels of carbohydrate provided carbohydrate and assimilation shall been adequately studied to ensure excellent growth performance and good health.
7. Fish oil shall be used primarily to top-dress feeds. All fish oil to the diet shall meet the following minimum requirement: 3% Free Fatty Acids, < 1% Nitrogen and < 1% Moisture.

8. The fish oil shall be stabilized using 0.02% BHA-BHT (1:1), Ethoxyquin at 0.01% or equivalent antioxidant system.
9. Sizes shall be given as millimeters in descriptions below. However, inches are also an acceptable measurement. See the conversion table below.

mm	inches decimal	inches fraction
0.3	0.0118	1/64
0.5	0.0199	1/64
0.8	0.0315	1/32
1.0	0.0393	3/64
1.2	0.0472	3/64
1.5	0.0590	1/16
2.0	0.0787	5/64
2.5	0.0984	3/32
3.0	0.1181	1/8
3.5	0.1378	9/64
4.0	0.1575	5/32
4.5	0.1771	3/16
5.5	0.2165	7/32
6.0	0.2362	15/64

C. Fish Food Details

1. Fry Feed
 - a. 1000210890 - Fry Feed, Mash (0.2-0.4 mm)
 - b. 1000210891 - Fry Feed, #0 Granules (0.3 – 0.6 mm)
 - c. 1000181903 - Fry Feed, #1 Granules (0.4 – 1.0 mm)
 - d. 1000181904 - Fry Feed, #2 Granules (0.8 – 1.4 mm)
 - e. Guaranteed Analysis:
Fish Meal shall contain:
Ash, not more than 12%
Protein not less than 52%
Salt not more than 5%
Fat not less than 15%
Fiber not more than 2%
Moisture not more than 10%
 - f. Diet shall be standard commercial fish diet in the manufacturer's product line that meets the above specifications, and diet shall not be modified to reduce cost or quality.

- g. Diet shall contain adequate vitamin and mineral additives to assure health and growth of the fish.
- h. Fish feed supplied shall be a proven diet for the species being cultured, meeting the complete nutritional requirements for that species without necessity of supplemental feedings or diets.

2. Slow Sinking Extruded Pellets

- a. 1000181905 - Slow Sinking, 1.2 mm, Pellets, Extruded
- b. 1000181906 - Slow Sinking, 1.5 mm, Pellets, Extruded
- c. 1000181907 - Slow Sinking, 2.0 mm, Pellets, Extruded
- d. 1000181908 - Slow Sinking, 3.0 mm, Pellets, Extruded
- e. Guaranteed Analysis:
Fish Meal shall contain:
Ash, not more than 13%
Protein not less than 47%
Salt not more than 5%
Fat not less than 15%
Fiber not more than 2%
Moisture not more than 10%
- f. Diet shall be standard commercial fish diet in the manufacturer's product line that meets the above specifications, and diet shall not be modified to reduce cost or quality.
- g. Diet shall contain adequate vitamin and mineral additives to assure health and growth of the fish.
- h. Fish feed supplied shall be a proven diet for the species being cultured, meeting the complete nutritional requirements for that species without necessity of supplemental feedings or diets.

3. Slow Sinking Pigmented Extruded Pellets

- a. 1000210892 - Slow Sinking, Pigmented, 4.0 mm, Pellets, Extruded
- b. 1000181910 - Slow Sinking, Pigmented, 6.0 mm, Pellets, Extruded
- c. Feed shall include the manufacturer standard formulation of carotenoid pigments to enhance fish coloration.
- d. Guaranteed Analysis:
Fish Meal shall contain:
Ash, not more than 12%
Protein not less than 43%
Salt not more than 5%
Fat not less than 15%
Fiber not more than 2%
Moisture not more than 10%

- e. Diet shall be standard commercial fish diet in the manufacturer's product line that meets the above specifications, and diet shall not be modified to reduce cost or quality.
 - f. Diet shall contain adequate vitamin and mineral additives to assure health and growth of the fish.
 - g. Fish feed supplied shall be a proven diet for the species being cultured, meeting the complete nutritional requirements for that species without necessity of supplemental feedings or diets.
4. Slow Sinking Broodstock Extruded Pellets
- a. 1000181911 – Slow Sinking, Pigmented, 4.0 mm, Pellets, Extruded
 - b. 1000210893 – Slow Sinking, Pigmented, 6.0 mm, Pellets, Extruded
 - c. Shall include the manufacturer's standard formulation of carotenoid pigments, vitamins and minerals to optimize egg and sperm development.
 - d. Guaranteed Analysis:
Fish Meal shall contain:
Ash, not more than 12%
Protein not less than 47%
Salt not more than 5%
Fat not less than 15%
Fiber not more than 2%
Moisture not more than 10%
 - e. Diet shall be standard commercial fish diet in the manufacturer's product line that meets the above specifications, and diet shall not be modified to reduce cost or quality.
 - f. Diet shall contain adequate vitamin and mineral additives to assure health and growth of the fish.
 - g. Fish feed supplied shall be a proven diet for the species being cultured, meeting the complete nutritional requirements for that species without necessity of supplemental feedings or diets.
5. Floating Extruded Pellets
- a. 1000210462 - Floating, 2.5 mm, Pellets, Extruded
 - b. 1000210463 - Floating, 3.5 mm, Pellets, Extruded
 - c. 1000210894 - Floating, 4.5 mm, Pellets, Extruded
 - d. 1000181909 – Floating, 5.5 mm, Pellets, Extruded
 - e. Guaranteed Analysis:
Fish Meal shall contain:
Ash, not more than 12%
Protein not less than 41%
Salt not more than 5%
Fat not less than 22%
Fiber not more than 3%

Moisture not more than 8%

- f. Diet shall be standard commercial fish diet in the manufacturer's product line that meets the above specifications, and diet shall not be modified to reduce cost or quality.
- g. Diet shall contain adequate vitamin and mineral additives to assure health and growth of the fish.
- h. Fish feed supplied shall be a proven diet for the species being cultured, meeting the complete nutritional requirements for that species without necessity of supplemental feedings or diets.

D. Acceptance

- 1. Any order or portion thereof which appears contaminated upon visual inspection of either the outside of bags or the contents of bags shall be rejected.
- 2. Fish food that becomes moldy within ninety (90) days of receipt at the Hatchery, when stored in accordance with the Contractor's specifications, shall be deemed rejected by the State.
- 3. The State reserves the right to subject any shipment or portion to sampling and analysis to determine whether it complies with these Contract Specifications.
- 4. If analysis reveals that the shipment or portion thereof does not comply with the Contract offering, the non-conforming feed shall be deemed rejected.
- 5. The decision to undertake sampling and analysis shall be made promptly after evidence of a problem in the quality of the shipment or portion thereof becomes apparent.
- 6. Analysis is estimated to take three (3) weeks.
- 7. Upon rejection of a shipment or portion thereof, the Contractor shall either pick up the rejected fish food at the Contractor's expense, or at the election of the State, the rejected fish food shall be returned to the Contractor at the Contractor's expense.
- 8. All rejected feed shall be replaced within ten (10) business days of notification from the State of the rejection at no additional cost to the State.
- 9. The Contractor shall be required to pay the cost of all subsequent testing for the Term of the Contract if an initial test, paid for by Wildlife Resources and conducted by an independent laboratory, documents that fish feed being supplied by the Contractor does not meet all listed specifications.