Southern Regional Aquaculture Center



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# **Rainbow Trout**

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The rainbow trout has always been known as a great sport fish. But, in recent times, along with its sport connotation, it has also gained recognition as a

tasty, nutritious dinner for all diets.

Traditionally, the typical American diet is high in calories, total fat, saturated fat, cholesterol, salt, and sugar. However, in the last few years there has been a national interest in nutrition, physical fitness, and overall health. Americans are gradually changing their eating habits and lifestyles as they become more aware of the role of diet in promoting good health and preventing disease. Dietitians and other health professionals now suggest that we consume less than 30 percent of calories from fat.

Fish can make a significant contribution toward reducing fat in our diet. Not only is fish low in fat, but it is also a tasty, highly nutritious and wholesome food that can offer an endless variety to menus. It can be a delightful addition to any meal, and is an excellent source of protein and other nutrients.

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Fish may often cost less per pound than some other meats because it has less inedible portions, like bones and fat. It is also easy to prepare and cooks in minutes rather than hours. With today's health conscious public searching for the right elements for a healthy diet, it is easy to see why fish is increasing in demand - especially rainbow trout.

#### Characteristics

Rainbow trout are native from northern Mexico to southern Alaska west of the Rockies. Rainbow trout prefer clear, cool, high quality water. Sometimes trout migrate to the ocean where they spend several years of their life.

Rainbow trout have long been known for the spectacular leaps and runs they make when caught by the sport fisherman in swift, cool, white-water rivers. These fish always put up a good fight

during the catch. Rainbow trout are easily identified by the broad reddish band or 'rainbow" which runs along their side from head to tail. The reddish band blends into a dark olive green on the back and pure white or silver on the belly. The back, dorsal fin and tail are generously sprinkled with black spots. The brightness of color varies with where the rainbow trout lives and what it eats.

### Commercial trout

Consumers no longer have to try their luck at fishing in order to enjoy rainbow trout. Because of new research, scientists have developed environmental raceways and improved feeding conditions to encourage the production of fast-growing, healthy trout. Improved production practices, selective breeding and nutritionally complete feeds now make it possible to produce market size (10- to 14-ounce) trout in as little as 10 months.

Today, with modern rearing and shipping techniques about 95 percent of rainbow trout consumed in the United States is farm raised and available nationwide any time of the year at very reasonable prices.

### Market forms

Rainbow trout are generally sold fresh in many seafood markets and packed in ice. Because of their smaller size trout are usually sold whole and either dressed or butterfly style.

# **Nutritional value**

The Food Guide Pyramid is designed to show consumers the types and amounts of foods that they should eat each day for optimal nutrition. According to the Food Guide Pyramid, each person should consume at least 2 servings a day from the meat, poultry, fish, and dry bean group, while still trying to consume fewer high-fat foods.

Rainbow trout is an excellent meat group choice because it is lower in fat and calories than some foods from the meat group and is also a good source of many important nutrients. A 3-ounce serving of cooked rainbow trout contains 22 grams of protein and only 130 calories, 4 grams of fat, 1 gram of saturated fat, and 30 milligrams of sodium.

Health conscious Americans should consider including rainbow trout in their diet. Whether you prepare and eat trout at home or at a restaurant, rainbow trout is a delicious, nutritious, and healthy choice.

# Cost

Another advantage of trout in addition to its nutritional value is its lower price per pound of edible meat.

# For example:

Cost per serving of different foods from the meat group:

 $1^{1}/_{2}$  cups cooked kidney beans = 80.66

3 ounces cooked trout = \$1.02

3 ounces cooked chicken = \$1.19

3 ounces cooked pork = \$1.53

3 ounces cooked beef = \$1.92

But remember, the more processed the fish, the higher the cost.

### For example:

Dressed trout (cleaned, with head and tail still on) = \$3.49 per pound

Butterfly (cleaned, with head and tail removed) = \$3.79 per pound

# Food safety

# **During purchasing:**

When purchasing rainbow trout, or any fish, check for freshness.

Fresh whole trout have:

- clear and bulging eyes
- light pink or white firm flesh
- shiny skin
- no brown or yellow on edges
- fresh, ammonia-free odor
- red, moist gills

If you will not be cooking the trout within a 24-hour period:

- place on a cake rack in pan
- fill the pan with ice
- cover with foil or plastic wrap
- place in refrigerator at 32 to 37°F

If you will not be cooking the trout within 2 days:

- wrap tightly and freeze immediately at 0°F or lower to help prevent freezer burn (only foods not previously thawed from frozen; never refreeze foods)
- commercially frozen trout will keep fresh for 7 to 9 months.

# **Preparation**

### Thawing:

- Thaw fish in refrigerator when ready to prepare, allowing 24 hours for a 1-pound package
- Never thaw fish at room temperature
- Unfrozen or thawed fish will keep fresh no longer than 36 hours.

#### **Pre-preparation:**

When you buy the fish fresh from your supermarket for dinner the same night:

wash hands thoroughly

- keep equipment clean
- store fish in refrigerator
- prepare the trout in as little time as possible
- remove from package
- rinse with cold water
- pat dry with paper towel
- start preparation.

# Cooking

# Always cook fish before eating it.

When you decide to create a wonderful meal with your rainbow trout, here are a few cooking tips to make your sensational creations a cinch!

# First of all, leave scales on the fish.

The jelly around the scales permits the trout to be breaded or coated without using any type of liquid. This allows for easy, all-natural cooking.

Next, leave the head or tail on while cooking. This minimizes skin breakage, and "foreign" flavors.

If broiling, place the trout 4 inches or more away from the heat. Turning the fish is not necessary during broiling. It will baste in its own juices, making it tender and well-done.

**If you are baking**, cook the trout at 400 to 425°F for the period of time the recipe calls for.

Test by probing a fork into the fish to see if it is done. Do not turn. If the fish is ready, it will come easily off the fork as you pull it out of the fish.

### 10-Minute rule

The 10-minute rule is one way to cook fish by conventional method (but not deep-frying or microwaving). It can be used for baking at 400 to 450°F, grilling, broiling, poaching, and steaming. Here is how to use the 10-minute rule:

Measure the fish at its thickest point. If the fish is stuffed or rolled, measure after stuffing or rolling.

Cook fish about 10 minutes per inch, turning it halfway through the cooking time. For example, a 1-inch fish steak should be cooked for 5 minutes on each side for a total of 10 minutes. Pieces less than 1/2 inch thick do not have to be turned over. Test for doneness. Flake with a fork. Fish should reach an internal temperature of 145°F. Add 5 minutes to the total cooking time for fish cooked in foil or in a sauce.

Double the cooking time for frozen fish that has not been defrosted. Use this rule as a general guideline since fillets often do not have uniform thickness.

### In the microwave

To cook fresh trout in the microwave, make three slashes across the entire body of the fish on both sides. Brush the cavity and both sides generously with margarine. Sprinkle the cavity with lite salt and seasonings to taste. Cook for 5 minutes on high. Turn the trout and microwave for 5 more minutes. Remove from the microwave and let stand, covered, for 3 minutes. Meat should flake easily, and not be soft to the touch. The dorsal fin should be easy to remove.

# Simple ideas to spice up your entrees

One way to make a great trout meal is by stuffing filets. Here are some delicious suggestions:

For orange rice stuffing, cook 2 to 3 cups of rice in 4 parts water, 2 parts orange juice and 1 part lemon juice. Add sauteed chopped celery, onions, slivered almonds and fresh chopped parsley. Stuff trout with rice mixture. Brush with orange juice, lite oil, and bake until golden brown.

For succotash stuffing, season cooked, diced carrots, corn, lima beans, and green peppers with lemon pepper. Stuff trout with vegetables, drizzle cavity with margarine and bake until golden brown.

For wild rice stuffing, cook long grain and wild rice in beef or seafood stock with your choice of herbs. Add sauteed mushrooms and chopped parsley to the stuffing. Stuff trout and bake until golden brown.

# **Trout toppings**

Some other simple ways to dress up trout are with breading or sauces.

The recipe for French Bread Fish coats trout and still keeps the dish low-fat by baking instead of frying.

Just dip trout in skim milk and low-fat egg mix or egg whites, wash and coat in coarse French bread crumbs seasoned with lite salt and paprika and bake according to the 10-minute rule.

Mushroom Sauce, Sauce Marinara, and Herb Sauce are all excellent complements to trout entrees.

For the mushroom sauce, saute sliced mushrooms in margarine and flour. Add 4 parts chicken bouillon, 1 part tomato sauce, and season with parsley, dill, and poultry seasoning. Simmer half an hour and serve piping hot over broiled trout.

For sauce marinara, simmer canned tomatoes, garlic, parsley, oregano, salt and pepper in lite vegetable oil for 20 to 30 minutes. Serve hot over broiled or baked trout.

For herb sauce, saute chopped scallions in margarine with thyme, oregano, sage, rosemary and marjoram. Season to taste. Serve hot over trout.

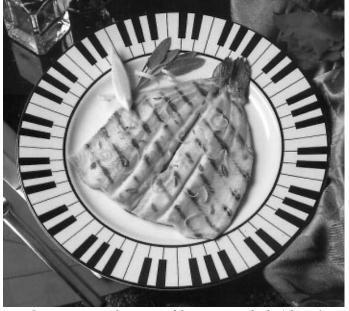
# Great garnishes and sensational seasonings

To simply "dress-up" your entree, consider using some of these suggestions:

- carrot curls
- green pepper rings
- lemon crowns or wedges
- radish roses
- parsley
- chopped watercress
- sliced toasted almonds
- chopped chives
- scallions
- paprika

With any of these garnishes, be as creative as you like, remembering taste, but that little extras can make the meal!

There are many reasons for the increased popularity of rainbow trout. It is a great sport fish. It fits into a healthy lifestyle. You can now purchase it in supermarkets any time of year and at very reasonable prices. It is simple and quick to prepare. But no matter why you decide to try rainbow trout, you'll find it a delicious choice that will keep you and your family coming back for more.



Rainbow trout may be prepared by many methods (photo from U.S. Trout Farmers Association).

# Recipes

# **Rainbow Trout Sandwich Spread Appetizers**

This is a quick and elegant way to both entertain guests and use leftover cooked trout.

- 7 3/4 ounces canned trout (packed in water) or cooked, flaked trout
  - 1 (3-ounce) package low-fat cream cheese, softened
  - 2 teaspoons Worcestershire sauce
- 3 to 4 dashes Tabasco sauce

Sourdough or pumpernickel rounds

Drain trout if canned. Remove any large bones. Mix cream cheese, Worcestershire and Tabasco sauces until smooth. Fold in trout. Spread on bread rounds to serve. This recipe makes 1 cup of spread and 16 (one table-spoon) servings.

### **Nutrition Information Per Serving**

Calories.	36
Fat	1.75 grams
	4 grams
Sodium	28 milligrams

# Fresh as Spring Trout Salad

This is a great cool summertime recipe that not only uses up leftover trout but can also use up any vegetables you may have on hand.

- 1 bottle low-fat or fat-free vinaigrette salad dressing
- 7 3/4 ounces canned or flaked cooked trout

various salad greens and vegetables: celery, carrots, bell peppers, etc.

Drain trout if canned. Remove any large bones. Arrange salad greens on large platter. Arrange 3 of your chosen vegetables in a semi-circle on top of lettuce. Fill lower portion of platter with chunks of trout. Sprinkle entire salad with vinaigrette. This recipe makes 2 to 3 entree servings.

### **Nutrition Information Per Serving**

\*Cannot be calculated because of variation in recipe.

# **Hearty Trout Stew**

This is a healthy comfort food for those chilly winter days.

1/4	cup water	1	teaspoon salt
1	onion, thinly sliced	1	cup tomato juice
2	cloves garlic, minced	4	small potatoes, peeled and diced
1	green pepper, chopped	2 1/2	pounds trout filets
1	medium tomato, peeled and chopped	1	10-ounce package frozen green beans

Combine all ingredients except trout and green beans in a 2-quart casserole. Cover and microwave, 10 minutes on high or until potatoes are tender. Add fish and green beans to stew, cover, and microwave 5 minutes on high. Serves 4.

### **Nutrition Information Per Serving**

Calories	173
Fat	4 grams
Protein	22 grams
Sodium	720 milligrams

### **Trout Almandine**

Trout Almandine is a favorite traditional trout recipe that you may have eaten before.

You will need

6 fresh or frozen pan-dressed trout (about 8 ounces each)
2 tablespoons cooking oil
5 tablespoons butter or marks

1 beaten egg 6 tablespoons butter or margarine

1/4 cup skim milk
 1/2 cup all-purpose flour
 1/4 cup sliced almonds
 1 tablespoon lemon juice

Thaw fish if frozen. Bone trout, if desired. Season. Combine egg and milk. Dip fish in flour, then in egg-milk mixture, and again in flour. In a large skillet heat together the oil and 2 tablespoons butter or margarine. Fry trout in hot oil mixture for 5 to 6 minutes on each side or till golden and fish flakes easily with a fork. In a skillet cook almonds in remaining butter till nuts are golden brown. Remove from heat; stir in lemon juice. Place trout on a platter; pour almond mixture over. Serves 4 to 6.

# **Nutrition Information Per Serving**

Calories.......528
Fat .......40 grams
Protein ......27 grams
Sodium .....427 milligrams

# **Grilled Trout Sesame Style**

Because this recipe uses grilled trout it is a low-fat and delicious family summertime food.

You will need:

2 tablespoons olive, chili, or sesame oil
 1/2 cup sesame seeds
 1/8 teaspoon pepper

2 to 3 drops hot pepper sauce 6 pan-dressed frout, 1/2 pound each

1/4 cup lemon juice

Combine all ingredients. Cook over medium-hot coals 8-10 minutes, turn and baste. Continue cooking 8-10 minutes longer. Serves 6.

# **Nutrition Information Per Serving**

Calories......295
Fat ......15 grams
Protein ......33 grams
Sodium .....375 milligrams

# **Oven-fried Trout**

This is a low-fat version of the old favorite "fried trout."

You will need:

- 1 pound fresh or frozen fish filets or steaks or three 10- to 12-ounce fresh or frozen pan-dressed trout
- 1 beaten egg
- 1/2 cup fine dry bread crumbs
- 1/4 cup melted butter or margarine
  - 1 tablespoon lemon juice

Thaw fish if frozen. If using a filet block, cut block into 3 portions. Dip fish into beaten egg, then into bread crumbs. Place coated fish in a well-greased, shallow baking pan. Sprinkle with salt and pepper. Drizzle a mixture of melted butter or margarine and lemon juice over fish. Bake in a  $500^{\circ}$  oven until golden and fish flakes easily when tested with a fork. Allow 5 to 6 minutes for each 1/2 inch of thickness. Makes 3 servings.

### **Nutrition Information Per Serving**

Calories......351
Fat ......18 grams
Protein ......32 grams
Sodium ......516 milligrams

