Farm to School Month – Week Four: Indigenous Food Focus
Salmon Day!!

Many thanks go out to Melissa Chlupach, Regional Healthcare Dietitian with NMS, for all her help with all the information she has provided me for each Wednesday this month celebrating Indigenous Foods We Eat! All information I have listed below is based on the materials she has passed along. Thank you, Melissa!!

SALMON
Let’s learn about salmon today!!

Why take a whole day to look at salmon? Well, speaking from the economics lens of the seafood industry, salmon is still king in Alaska. By all measures, salmon are responsible for the greatest economic impact (jobs, income, and total value) among all species in the Alaska seafood industry. Salmon’s total contribution to the national economy includes approximately 38,400 FTE jobs and just under $2 billion in annual labor income. I’d say that is a GREAT reason to learn about this delicious fish!!

There is another great reason for learning about salmon: they are a healthy Native food that contribute to healthy cultures. Alaska Natives have been nourished by foods from the land, air, and water for thousands of years. They have had a lifelong association with these foods, seeking them, harvesting them, cleaning them, preparing them to be eaten or stored, keeping the foods safe from loss of spoilage, and enjoying them as foods. People take great comfort from eating the foods they’ve grown up with. These foods can be very comfortable to eat in times of illness and healing, and are very rich in the nutrients necessary for good health.

Native foods tend to be very good sources of nutrients like protein, iron, Vitamins A, D and E, and low in saturated fats and sugars. Native foods are the heart of culture and health. They provide close ties to the land and the seasons and the environment. Participating in harvesting, preparing, sharing and eating the foods along with others contributes to spiritual well being.

The Roots of Salmon History
- Salmon are not only ancient and unique, but it is important because it is expressed in culture, art forms, and ceremonial feasts.
- History shows salmon used tributaries, rivers and estuaries without regard to jurisdiction for 18–22 million years.
- Alaska Natives often used the entire fish and left no waste by creating items such as turning the bladder into glue, bones for toys, and skin for clothing and shoes.
- The salmon catch grew rapidly with the expansion of the cannery capacity through 1920. This led to over fishing, which resulted in such low salmon stocks that President Eisenhower declared Alaska a federal disaster area in 1953. In fact, in 1959, statewide harvests totaled only about 25
million salmon, which is less than 20% of current sustained production. This was a major factor in the declines of the Alaska salmon fishery that occurred between 1920 and 1959.

- Currently, the harvest in Alaska represents about 80% of the total wild-caught North American harvest of salmon, harvests from Canada representing about 15%, and harvests from Pacific Northwest states representing about 5%.

Let’s Move into the Science of Salmon

**Pronunciation:** 'sæman

**King Salmon:** Chinook
Yup’ik name: Taryakvak
Iñupiaq name: Iqalugruaq
Dena’ina name: Liq’a Ka’a
Sugt’sun: Lluqakaq
Tlingit name: T’a
Family: Salmonidae
Genus: *Oncorhynchus*
Species: *O. tshawytscha*

The Chinook salmon is the largest of all Pacific salmon, typically measuring 36 inches in length, often exceeding 30 pounds. Adults are distinguished by the black irregular spotting on the back and dorsal fins and on both lobes of the caudal or tail fin. Chinook salmon also have a black pigment along the gum line, thus the name "blackmouth" in some areas. Subsistence fishermen in the Yukon and Kuskokwim Rivers catch an average of 60,000 kings each year.

**Red Salmon:** Sockeye
Yup’ik name: Sayak
Dena’ina name: Q’uya
Sugt’sun: Nikliliq
Tlingit name: Gaat
Family: Salmonidae
Genus: *Oncorhynchus*
Species: *O. nerka*

Sockeye salmon are one of the smaller species of Pacific salmon, measuring 18 to 31 inches in length and weighing 4-15 pounds. Sea-going sockeye salmon have iridescent silver flanks, a white belly, and a metallic green-blue top, giving them their "blueback" name. Some fine black speckling may occur on the back, but large spots are absent. Sockeye salmon are prized for their firm, bright-orange flesh. Sockeye salmon from Alaska’s waters rank among the world’s finest seafood. The natural environment provides them with superior flavor, color, and texture.
**Silver Salmon:** Coho  
**Yup’ik name:** Qakiiyaq  
**Iñupiaq name:** Iqalukpik  
**Dena’ina name:** Nudleigha  
**Sugt’stun:** Qakiiyaq  
**Tlingit name:** L’ook  
**Family:** Salmonidae  
**Genus:** Oncorhynchus  
**Species:** O. kisutch

Coho adults usually weigh 8 to 12 pounds and are 24 to 30 inches long, but individuals weighing 31 pounds have been landed. Adults in salt water or newly returning to fresh water are bright silver with small black spots on the back and on the upper lobe of the tail fin. They can be distinguished from Chinook salmon by the lack of black spots on the lower lobe of the tail and by their white gums; Chinook have small black spots on both tail fin lobes and they have black gums. Spawning adults of both sexes have dark backs and heads with maroon to reddish sides. Silver salmon is one of the most important and frequently used traditional food sources. Silver salmon enter spawning river systems from August through November, usually during periods of high water.

**Pink Salmon:** Humpy  
**Yup’ik name:** Amaqaayak  
**Iñupiaq name:** Amaqtuuq  
**Dena’ina name:** Liq’a Ka’a  
**Sugt’stun:** Amartuq  
**Tlingit name:** Cháas’  
**Family:** Salmonidae  
**Genus:** Oncorhynchus  
**Species:** O. gorbuscha

Pink salmon are the smallest of the Pacific salmon found in North America weighing on average between 3.5 and 5 pounds, with an average length of 20-25 inches. As with all members of the salmon family, pink salmon are coldwater fish. They are also the most numerous Pacific salmon and have been harvested and canned commercially in Alaska since the late 1800’s. Young pink salmon are completely silver without any dark vertical bars or spots. In the ocean, adults are bright greenish-blue on top and silvery on its sides. They have very small scales and pink flesh. As adults get closer to returning to fresh water, they develop a lot of large black spots on their back and all over their tail. When pinks approach their spawning streams, males turn brown to black on their back with a bright white belly. Females have a bright white belly but turn an olive green with dusky bars or patches that can be lavender or a dark gold.

**Chum Salmon:** Dog and Keta  
**Yup’ik name:** Iqaalluk  
**Iñupiaq name:** Qalugruaq  
**Dena’ina name:** Seyi  
**Sugt’stun:** Aliimaq  
**Tlingit name:** Teél’  
**Family:** Salmonidae
Genus: *Oncorhynchus*
Species: *O. keta*

Chum salmon, also known as dog salmon, are the most widely distributed of all the Pacific salmon and generally occur throughout Alaska. Like most other Pacific salmon species, chum salmon spend most of their life feeding in saltwater, then return to freshwater when mature to spawn once in the fall then die. Most chum salmon populations do not travel far upstream to spawn; however, some travel up to 2,000 miles upstream to the headwaters of the Yukon River. Although generally regarded as one of the less desirable species of salmon, in Arctic, Northwestern, and Interior Alaska, chum salmon are highly prized as a traditional source of dried winter food. Since the 1980s, commercial chum salmon harvests in Alaska have more than doubled as a result of the Alaska hatchery program and increased foreign sales.

**Where Do Salmon Live?**
Typically, salmon are anadromous: they hatch in fresh water, migrate to the ocean, then return to fresh water to reproduce. However, populations of several species are restricted to fresh water through their lives. Various species of salmon display anadromous life strategies while others display freshwater resident life strategies. Folklore has it that the fish return to the exact spot where they hatched to spawn; tracking studies have shown this to be mostly true. A portion of a returning salmon run may stray and spawn in different freshwater systems. The percent of straying depends on the species of salmon. Homing behavior has been shown to depend on olfactory memory.

**Reasons to Eat Wild Alaska Salmon**
3 oz serving of cooked wild Alaska salmon provides:
- A low calorie, high protein food (if you cook it in a low-fat way).
- An excellent source of omega-3 fatty acids.
- A heart friendly food low in saturated fat and low in sodium.

**Some Great Salmon Facts**
- “When salmon are half dead, those old, spawning salmon, their skins are tough. We make water boots from this tough salmon skin.” – Mamie Beaver “Fish That We Eat”
- Salmon are more powerful than any other fish. Children may be sheltered from the danger of “bad spirits” by wearing dried salmon tails around their neck or carrying them in their pockets.
- “I took my grandson out in a skiff to catch pinks. We caught 15 fish, and then went house to house to give to elders. At the last elder’s house, we gave away the only fish left. After leaving, my grandson asked ‘Umma, what are we going to do? My mom needs fish too.’ I said we can go fishing tomorrow. This was my grandson’s first experience of the ‘gift of giving’ to others.” – Eleanor McMullen, Port Graham.
- Red salmon have a distinctive deep-red color that is retained when cooking. Their fat content depends on where they are caught. They are often good for drying. Commercial fishermen refer to these
salmon as “money-fish” because they fish for red salmon to make money.

- “Of all my traditional Native foods, I love dried fish... I live next to a stream that is one hundred feet from my house, and I fish there. The fun part of going after fish, whether it’s sockeye, dogfish, humpies, coho, or silvers, is being physically active. Being involved in the preparation process -- doing work, getting the wood, hanging the fish to dry, and caring for the fish. You don’t just walk away.” – Lincoln Bean, Kake

Let’s eat . . .

**BBQ Salmon Sandwich**

**Serves 4**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Red cabbage, thinly shredded</td>
<td>2 cups</td>
</tr>
<tr>
<td>Apple cider vinegar</td>
<td>2 Tablespoons</td>
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<tr>
<td>Vegetable oil</td>
<td>1 Tablespoon + 1 Tablespoon</td>
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<tr>
<td>Dry mustard</td>
<td>½ teaspoon</td>
</tr>
<tr>
<td>Celery seed</td>
<td>½ teaspoon</td>
</tr>
<tr>
<td>Salmon fillets, fully cooked</td>
<td>4 fillets</td>
</tr>
<tr>
<td>Chili powder</td>
<td>3 teaspoons</td>
</tr>
<tr>
<td>Garlic powder</td>
<td>2 teaspoons</td>
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<tr>
<td>BBQ sauce</td>
<td>¼ cup</td>
</tr>
<tr>
<td>Cucumbers, sliced thin</td>
<td>½ cup</td>
</tr>
<tr>
<td>Radishes, sliced thin</td>
<td>½ cup</td>
</tr>
<tr>
<td>Whole wheat bun</td>
<td>4 buns</td>
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<tr>
<td>Salt</td>
<td>To taste</td>
</tr>
<tr>
<td>Black pepper, ground</td>
<td>To taste</td>
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1. Preheat oven to 400°F.
2. Toss cabbage, apple cider vinegar, 1 tablespoon oil, dry mustard, celery seed, and salt and black pepper together. Refrigerate for 30 minutes.
3. Place salmon fillets on baking sheet. Top each fillet with 1 teaspoon oil and season with salt, pepper, chili powder, and garlic powder. Bake for 12 to 16 minutes, or until fully cooked (135F). Remove from oven, top with 1 Tablespoon of BBQ sauce on each, and let rest for 5 minutes.
4. Toast whole wheat buns. Build sandwich by placing salmon on bottom bun and top with marinated cabbage, cucumber slices, and radish slices.
5. Serve as part of a healthy, complete meal.

**Yummy Goodness and Tasty Tips!!**

- It is recommended that individuals consume at least two meals per week of fatty fish such as salmon.
- When purchasing fresh or thawed fish from the seafood counter, let your eyes and nose be the judge. Good quality fish smells sea-fresh. It should not have a strong odor or smell “fishy.
  - Whole fish should have clean, bright, bulging eyes, and gills should be bright red.
  - Fish fillets and steaks should appear moist, firm and freshly cut.
  - Prepackaged fish should contain only a minimum of liquid.
- When purchasing frozen fish, look for solidly frozen packages. Do not buy fish that is stored above the chill line of the case. Do not buy fish with freezer burn or icy white discoloration.
• Fish is highly perishable. Store fresh or defrosted fish in the coldest part of your refrigerator and plan to use it within two to three days of purchase.
• For best quality, high-fat fish, like salmon, may be stored up to four months in a home freezer at 0°F or lower.
• Do not allow frozen fish to thaw until you are ready to use it. Refreezing fish will severely alter its quality.
• It’s best to thaw fish overnight in the refrigerator. Place the wrapped package on a plate or shallow pan to catch any liquid that drips out. Allow 8–10 hours (extremely large cuts may take a bit longer).
• Salmon is a very versatile protein to cook as it can be baked, broiled, fried, grilled, poached, steamed, canned, or (my personal favorite) smoked.