Seafood labeled as “organic” is appearing in supermarkets across the country, however, the “organic” label is very misleading. For fish, the term has no real meaning: There are no U.S. governmental organic standards for seafood. These products are often labeled organic based on a private set of company standards, or in accord with European standards. Often, neither of these equate to what consumers in the U.S. expect “organic” to mean.

The National Organic Standards Board, which assists the U.S. Department of Agriculture with the development of organic standards for food, is debating criteria for some seafood. However, it has not yet recommended acceptable practices, in part because of the complexity of fish farming, also called aquaculture, compared to the farming of domesticated livestock. Consumers should be wary of seafood bearing a European Union or independent European organic organization label because, in many cases, the standards there are not as strict as U.S. organic standards for other foods.

The European Union has added aquaculture products to the list of commodities that can be certified organic using standards developed for livestock, and independent organizations in many European countries have already created their own standards. The result is a variety of organic labels that have little meaning. For example, some of the European standards fail to prohibit or to require dramatically reduced use of wild-caught fish in industrially produced fish feed. Also, they lack criteria for minimizing fish farm pollution and allow products from open ocean aquaculture to be certified as organic, despite the many environmental concerns associated with that type of production. Because of the challenges of producing farm-raised fish without chemical inputs or wild fish as a feed ingredient, European standards have allowed them in organic production. Many participants in the U.S. process for creating organic standards, on the other hand, believe that key principles of organic production should not be sacrificed in order to make organic certification applicable to a wider variety of seafood.

The Workings of EU Certified Organic Fish

The member countries of the European Union established organic rules through the 1991 Council Regulation No. 2092/91, which covers organic production of agricultural products. This document made no mention of fishing or aquaculture, but has recently been amended to expand its scope. The new regulation, published in June 2007 and scheduled to take effect on January 1, 2009, essentially says that a framework of organic production rules for aquaculture should be created. Although it introduces some principles for organic aquaculture, it does not yet establish detailed criteria. What it does say is that organic aquaculture must at least ensure compliance with the standards for animal protection, and that it must be based on the principle of maintaining the biodiversity of natural aquatic ecosystems, the continuing health of the aquatic environment and the quality of surrounding aquatic and terrestrial ecosystems in aquaculture production.

The following are aspects of the new EU regulation relating to fish aquaculture, broken into those involving standards consistent with the U.S. principles of true organic production, and those that fall short.
Consistent

• The feed for farm-raised fish is usually made up of parts of other fish, as well as non-fish substances. The non-fish component of feed used in aquaculture must come from either organic farming or natural non-agricultural substances (Article 5, o).
• The EU standards state that negative environmental impact, including the escapement of farmed fish into the wild, should be minimized (Article 15, 1, b(iv)).
• Cloning and genetic alteration of farmed fish is not allowed (Article 15, 1, c(i)).
• Eventually, species-specific conditions for breeding will be established (Article 15, 1, c(iii)).
• Some fish farms use artificial means to promote fish growth. The EU organic regulation bans growth promoters and synthetic amino acids used for that purpose (Article 15, 1, d(iv)).

Falling short

• Most species of fish require a protein-rich diet and some portion of oil or meal from other fish in their food. This meal and oil is generally made from wild fish. One of the key principles of organic agriculture is raising animals on a totally organic diet, and because the lives of wild fish cannot be controlled, they can never be considered true organic products, or appropriate food for organically raised livestock. Unfortunately, the EU regulation fails to ban use of wild fish in organic fish feed.
• Even worse, the EU doesn’t minimize the amount of wild fish going to produce farmed fish — something necessary for seafood production to be considered sustainable on any level. Some fish farming requires about two to six pounds of wild-caught fish as feed to produce one pound of farmed fish. When input of wild fish is greater than the production of farmed fish, a net loss of protein occurs, which can cause depletion of ocean resources. The EU regulation says that the fishmeal component of fish feed must be produced following a previously published regulation on sustainable exploitation of fisheries (Article 5, o). Unfortunately, this regulation is not based on organic principles and does not prevent aquaculture from depleting wild fish stocks or creating a net loss of protein.
• Producing food without the use of chemicals or drugs is a key tenet of what it means to be organic. However, the EU regulation states that, “chemically synthesized allopathic veterinary medicinal products including antibiotics may be used where necessary…” (Article 15, 1, f(ii)). The use of immunological veterinary medicines is also allowed (Article 15, 1, f(iii)).
• Standards to protect bodies of water from pollution or to minimize excessive consumption of water resources are not included.
• Net pens — huge cages filled with farmed fish in the open ocean, which have been known to cause significant environmental damage — are not prohibited from organic certification.

Assessment: The EU has introduced the concept of organic aquaculture before setting sufficient standards. It has allowed materials that aren’t organic to be used as feed, left out standards for water use and waste disposal, allowed the use of potentially harmful antibiotics and permitted environmentally destructive net pen aquaculture.

Recommendations for improving EU standards:

• Aquaculture that uses wild fish as a feed ingredient should be banned from organic certification — the key principles of organics should not be sacrificed to make seafood production more convenient.
• Standards for water quality protection and conservation must be established.
• Ocean aquaculture should be banned from organic certification.
• Antibiotics and drug use should be banned from organic aquaculture.
• A metric for effluent discharge should be established and maximum amounts of waste should be developed for organic aquaculture.
Individual Country Certification and Labeling

The use of the EU organic label is not mandated for European organic products (although those produced within the European Community must be labeled with the text “EU-ORGANIC”). It also does not prevent additional public or private labels from being used or stop organizations in individual countries from using their own labels. Many countries have devised their own label or have allowed independent organizations to do organic labeling. Some of these organizations developed aquaculture standards before EU regulations had touched on the issue. Within the EU, Agriculture Biologique of France, Bio Austria, Bioland Germany, Naturland of Germany and KRAV of Sweden have developed standards for organic aquaculture. Outside the EU, Bio Suisse (Switzerland) and Debio of Norway have also developed standards. These products impact the global market by shaping the way that seafood production facilities in many countries — including operations that also export to the United States — operate.

The Soil Association (UK)

Organic certification is handled by a number of organizations in the UK. The Soil Association claims to be one of the first organizations to become actively involved in the development of organic aquaculture standards. It looks individually at the issues surrounding production for each species and has developed standards for salmon, trout, char, shrimp, carp and bivalve shellfish, like clams, mussels and oysters. Soil Association’s standards call for important elements of environmentally friendly aquaculture, such as low stocking density and “sustainable” feeds with only natural pigments and antioxidants and a limited fat content. They prohibit antifoulants — chemicals used on net pens to stop the growth of unwanted aquatic organisms like algae. However, they fall short of organic principles by not completely banning veterinary drugs (they are heavily restricted and require a long withdrawal period before fish can be harvested for human consumption). The standards initially define sustainable feed as that which grows naturally in ponds and lakes. If it isn’t possible to feed fish on that alone — and it isn’t for most farmed fish — the Soil Association says that fishmeal and oil should have organic origins or come from wild ocean fish that have been independently certified as sustainable by another organization or be made from by-products of wild fish caught for human consumption. At this time, most feed is coming from the latter category, which is questionable from an organic standpoint (the production of all feed should be organically controlled).

Recommendations:

Until the EU develops the recommended standards, Soil Association should do the following:
- Ban wild fish from organic fish feed.
- Establish detailed standards for water protection and conservation.
- Ban ocean aquaculture.
- Ban any aquaculture that requires antibiotics or drugs.
- Measure effluent discharge and set a limit on the amount of waste that can be discharged.

Bio Austria

Bio Austria developed aquaculture standards in 1995, and they are applicable for both herbivorous and carnivorous species in Austrian operations. In 2006, the organization issued organic certification to 32 aquaculture farms, most of which produced carp or rainbow trout. BioAustria lacks specific regulation for waste treatment, and has no way to measure water use efficiency. Sacrificing traditional organic principles as the Soil Association has,
Bio Austria has allowed fish meal/oil from wild fish to be used in feed for organic fish and allows for pharmaceutical treatments and vaccinations under some conditions.8

**Recommendations:**
Until the EU develops the recommended standards, Bio Austria should do the following:
- Ban wild fish from organic fish feed.
- Establish detailed standards for water protection and conservation.
- Develop a metric for effluent discharge and set a limit on the amount of waste that can be discharged.
- Ban any aquaculture that requires antibiotics or drugs.

**Bioland Germany**
Bioland is Germany’s largest organic farming association. Its standards encompass specific guidelines for pond culture of fish, focusing on the production of carp in Germany. The standards include a requirement that more than 50 percent of feed must come from the pond itself where the fish are cultured, and the remaining portion must come from the farm itself or another organically managed farm. Unfortunately, prescription drug treatments are not banned,9 and World Wildlife Fund (WWF) has criticized Bioland for lacking regulation on waste release and treatment, and on local land and soil hydrology.10

**Recommendations:**
Until the EU develops the recommended standards, Bioland Germany should do the following:
- Establish detailed standards for water protection and conservation.
- Ban any aquaculture that requires antibiotics or drugs.

**Naturland (Germany)**
Naturland plays a prominent role in certifying aquaculture across the globe, from Asia to Europe to Latin America.11 It developed species-specific standards in 1995, starting with carp, then salmonids, bivalve mollusks, and shrimp. The Swedish Society for Nature Conservation criticized it for certifying farms that not only used chemicals and antibiotics, but also failed to live up to either environmental criteria or Indonesian law.12 The National Coordinating Association for the Defense of the Mangrove Ecosystem, an Ecuadorian environmental group, reported that Naturland-certified shrimp ponds lack permits, agreements, management plans and environmental licenses. Moreover, they assert that Naturland’s certification of these farms sets a precedent for the shrimp industry to continue to damage mangrove forests, contaminate water and land and displace ancestral communities.13 Naturland asserts that the wild fish content of feed should be minimized, but does not ban it from organic fish production.14

**Recommendations:**
Until the EU develops the recommended standards, Naturland should do the following:
- Ban wild fish from organic fish feed.
- Establish detailed standards for water protection and conservation.
- Ban ocean aquaculture.
- Ban any aquaculture that requires antibiotics or drugs.
- Measure effluent discharge and set a limit on the amount of waste that can be discharged.

**KRAV (Sweden) and Debio (Norway)**
KRAV develops organic standards, inspects farm operations and promotes its own label. It has developed joint standards for organic aquaculture of salmonids, perch and cod with Debio of Norway, a non-EU member country. There is a mutual recognition of KRAV- and Debio-certified products. As of 2007, KRAV had not certified any products, and Debio had certified three operations: one salmon, one trout and one cod. Unfortunately, the standards do not ban wild fish from organic fish feed.15 In addition, they don’t guard against the disturbance of local hydrology, protect habitats and regulate effluent discharge. Drugs are allowed when necessary to treat an outbreak.16

**Recommendations:**
Until the EU develops the recommended standards, KRAV should do the following:
- Ban wild fish from organic fish feed.
- Establish detailed standards for water protection and conservation.
- Ban any aquaculture that requires antibiotics or drugs.
- Measure effluent discharge and set a limit on the amount of waste that can be discharged.
**Bio Suisse**
Switzerland is not a member of the EU, and thus does not follow EU-mandated organic criteria. However, it has developed its own standards for organic agriculture and aquaculture. Bio Suisse standards encompass the production of many finfish. For crustaceans and mollusks, Bio Suisse defers to partner organizations like Naturland. The label is used primarily in Switzerland. The organization has banned antibiotics, hormones and growth promoters from organic fish production, but does allow for some chemotherapeutic treatments. It has not banned wild fish from food for organic fish.17

**Recommendations:**
Until the EU develops the recommended standards, Bio Suisse should do the following:
- Establish a metric for establishing feed efficiency; a maximum food conversion ratio of one should be set in order to limit depletion of the wild fish stocks and net protein loss.
- Establish standards for water protection and conservation.
- Ban ocean aquaculture.
- Ban any aquaculture that requires antibiotics or drugs.
- Develop a metric for effluent discharge and set a limit on the amount of waste that can be discharged.

**Recommendations to Consumers:**
Until a reliable, U.S. government certification program for organic seafood is developed, consumers should focus on several key questions for buying seafood rather than trusting any one certification scheme:
- Where is it from? (Domestic or imported — try to choose domestic.)
- Is it farmed or wild? (Try to choose wild.)
- Is it caught or farmed locally? (Try to choose local foods over those shipped long distances.)
- How is it caught? (Ask if the method has high bycatch or habitat damage.)
- How is it farmed? (When available, buy seafood that has been farmed in the U.S. in inland, recirculating facilities. Tilapia, shrimp, hybrid striped bass and arctic char are examples of fish that are or are soon to be farmed this way.)
- Is it associated with any contaminants? (Mercury, PCBs, antibiotics, etc.)

For more information, go to www.foodandwaterwatch.org/fish and watch for our new Smart Seafood Guide!

**Endnotes**
15. Standards for KRAV Certified Production. KRAV, January 2008. Available at: www.krav.se

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