

ADVANCED BIOLOGICAL CONCEPTS®

APPLIED COMMON SENSE® • AQUAPONICS & AQUACULTURE • PRODUCT KNOWLEDGE

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Aquaponics & Aquaculture Product Knowledge is a continuing education series of guides that will help us on our journey towards a sustainable garden and farm. We all live on this beautiful and wondrous place we call earth. At Advanced Biological Concepts, our goal is to improve our lives through sustainable cultivation, understanding and education. We will explore how we can be good stewards of our planet while keeping our minds, bodies, animals and plants healthy.

Remember for your healthy mind and body, you are what you eat!

We will present most of our guides in easy to understand language, some issues will be geared towards the person just starting and some will be advanced that go into detail. We will learn as more information and technology becomes available and we will share it with you. We will listen to you, tell us what you want to know, we will do our best to cover topics and present them in future issues.

To start, we would like to share the ingredients we use in our signature blend:

Organic Fish Pellets



This product contains only certified organic agricultural products or ingredients that conform to the National Organic Program's national list of materials acceptable for organic livestock production.

Guaranteed Analysis

Crude Protein (min).....	31.000 %
Crude Fat (min).....	4.500 %
Crude Fiber (max)	8.000 %
Lysine (min)	1.250 %
Calcium (Ca) (min).....	0.700 %
Calcium (Ca) (max).....	1.200 %
Phosphorus (P) (min).....	0.400 %

Ingredients

Organic Canola Meal, Organic Sesame Seed Meal, Organic Corn, Organic Linseed Meal, Dicalcium Phosphate, Calcium Carbonate, Lactobacillus Acidophilus Fermentation Product, Organic Wheat Middlings, Organic Dried Kelp, Reed-Sedge Peat, Choline Chloride, Ferrous Sulfate, Manganese Sulfate, Zinc Oxide, Sulfur, Magnesium Oxide, Copper Sulfate, Calcium Pantothenate, Thiamine, Biotin, Sodium Selenite, Ethylenediamine Dihydriodide, Vitamin B12, Cobalt Carbonate, Organic Dried Tomato Pomace, Attapulgitic Clay, Diatomaceous Earth, Monosodium Phosphate, Organic Apple Cider Vinegar, Organic Dried Whole Milk, Organic Aloe Vera Gel Concentrate, Organic Potato Starch, Organic Dehydrated Eggs, Yeast Culture, Organic Lecithin, Potassium Chloride, Niacin, Sodium Sulfate, Copper Choline Citrate Complex, Ferric Choline Citrate Complex, Zinc Sulfate, Zinc Amino Acid Complex, Manganous Oxide, Manganese Amino Acid Complex, Ascorbic Acid, Vitamin A Acetate, Vitamin D3, Natural Source of Vitamin E (d-alpha Tocopheryl acetate), Riboflavin, Pyridoxine Hydrochloride, Carotene, Folic Acid, Cobalt Sulfate, Cobalt Choline Citrate Complex, Lactobacillus Acidophilus, Lactobacillus Casei, Bifidobacterium Thermophilum, Enterococcus Faecium, Potassium Citrate, Citric Acid, Calcium Sulfate, Magnesium Sulfate, Silicon Dioxide, Organic Sugar, Organic Sources of (Cayenne Pepper, Peppermint, Fabaceae Poaceae, Garlic, Parsley, Dandelion Root Extract, Licorice, Orange Peel Extract, Elder Flowers, Dandelion Extract, Ginger Extract, German Chamomile, Lemon Grass Extract, Thyme, Hops Extract, Sweet Fennel Extract, Sweet Basil, Sage, Cloves), Natural Antioxidants.

What is Organic?

What are the differences between 100% USDA Certified Organic, USDA Organic, Certified Organic, Organic and Natural? In this issue we will answer some of these questions so you can have a better understanding of what the term organic means.

Let's start with **Natural**. "Natural foods" are often considered to be foods that are minimally processed and do not contain any hormones, antibiotics, artificial sweeteners, artificial food colors, or artificial flavorings or ingredients that were not originally in the food. In the United States, neither the Food and Drug Administration (FDA) nor the U.S. Department of Agriculture (USDA) has any rules for "natural." The FDA discourages using the term. Because there is no legal meaning for natural foods, some food manufacturers include ingredients that may not be considered natural by some consumers. We as consumers would hope the food manufacturers will restrict the use of natural to foods that have ingredients produced by nature, not the work of man or interfered with by man; however, there are no laws that prevent manufacturers from doing so.

Organic foods are foods that are produced using methods that do not involve modern synthetic inputs such as synthetic pesticides and chemical fertilizers, do not contain genetically modified organisms, and are not processed using irradiation, industrial solvents, or chemical food additives. In 1939 the term organic was used to describe a holistic, ecologically balanced approach to farming. This was in contrast to what was referred to as man made chemical farming. Chemical farming relied on man-created fertility and cannot be self-sufficient nor an organic whole. Early consumers purchasing organic food would look for fresh or minimally processed food from non-chemically treated crops grown without unapproved pesticides. They mostly had to buy directly from growers: "Know your farmer, know your food" was the motto. Personal definitions of what constituted "organic" were developed through firsthand experience: by talking to farmers, seeing farm conditions, and farming activities. Small farms grew vegetables and raised livestock using organic farming practices without certification, and the individual consumer monitored the farm on their own.

Certified Organic and USDA Certified Organic are practically the same. The general consensus is that organic farming is less damaging towards people and our environment for the following reasons:

- Organic farms do not consume or release synthetic pesticides into the environment—some of which have the potential to harm soil, water and local terrestrial and aquatic wildlife.
- Organic farms are better than conventional farms at sustaining diverse ecosystems and populations of plants and insects, as well as animals.
- When calculated per unit area, organic farms use less energy and produce less waste, such as packaging materials for chemicals.



National Organic Program (NOP)

regulations cover in detail all aspects of food production, processing, delivery and retail sale.

Under the NOP, farmers and food processors who wish to use the word "organic" in reference to their businesses and products, must be certified organic. Producers with annual sales not exceeding \$5,000 are exempted and do not require certification; they may use the term organic, however they must still follow NOP standards, including keeping records and submitting to a production audit if requested, and they cannot use the term *certified organic*.

USDA Certified Organic is a labeling term that indicates that the food or other agricultural product has been produced and certified through approved methods that integrate cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity. Synthetic fertilizers, sewage sludge, irradiation, and genetic engineering may not be used as set down through the NOP. A USDA Organic seal identifies products with at least 95% organic ingredients.



100% USDA Certified Organic

Products labeled as “100 % certified organic” must contain (by weight or fluid volume excluding water and salt) only organically produced ingredients and processing aids.

A civil penalty of up to \$11,000 can be levied on any person who knowingly sells or labels as organic a product that is not



produced and handled in accordance with the National Organic Program’s regulations.

Get to know the people and companies you are buying from. As the organic marketplace becomes larger, companies interested in profit may try to word products in a way that sounds good but may have ingredients that you don’t want. Check out www.cornucopia.org. Cornucopia is a consumer watchdog organization. A popular ‘health’ brand is Kashi, owned by the Kellogg corporation. Most consumers believe Kashi is all natural. It should come as no surprise that Kashi cereals have been found to contain a copious amount of GMOs and pesticides, according to an explosive report from the Cornucopia Institute. Kashi’s ‘Heart to Heart Blueberry cereal’ was found to contain grains coated in the residue of many pesticides such as *phosmet*, *carbaryl*, *azinphos methyl*, *malathion*, *chlorpyrifos methyl*, and *chlorpyrifos*. What’s more, the company’s products were found to oftentimes contain *100% genetically modified ingredients*.

At Advanced Biological Concepts, we truly care for the health of people, animals and our planet. We are proud of what we do and will never knowingly make a product that is harmful or misleading. Our ideals are on our home page: **“Nutritional needs change, our service does not,” “Your priorities will always be ours,” “Safe Feed for Safe Food, GMO-Free” And we use Applied Common Sense®.**

Read labels carefully and get to **“Know your farmer, know your food.”**

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