

E. Organic Certification

1. What Is It? Benefits And Market Preference

- ❖ **Consumers are willing to pay 50-90% more** for organically certified produce than conventionally grown produce; this means wholesalers are often paying twice as much for organically certified produce as for conventional produce. If you farmed for a living, wouldn't you be willing to do something simple and easy that brought you 50-60% more income? In addition, as the farmer, you and your workers do not have to suffer from exposure to toxic chemicals on the job.
- ❖ **The market is increasingly demanding organic produce.** Chemical fertilizers are becoming more expensive. As they do, organic becomes not only a cleaner way to farm, but less costly compared to conventional. At some point, consumers will switch to organic because the price difference is minimal and the benefits are so clear. Having this certification on your products will increase sales.
- ❖ **In addition, even at a small scale, organic certification makes financial sense:** Even if you are only selling \$10,000 worth of conventionally-farmed produce per year to a wholesaler, that becomes \$20,000 worth with just the addition of Organic Certification, but no more work on your part. If you subtract the \$1,000 per year or so that Organic Certification costs, you still made \$9,000 more that year. It's a no-brainer!

2. Organic Certification

Why Is Certification Valuable To You?

- ❖ **Because you can get double the prices** for certified produce as you can for conventional. When writing a recent newsletter, we checked the Atlanta, Georgia, USDA terminal reports on 5-14-2012 for three produce items that you can grow anywhere in the world in aquaponics systems. We found that the price for all three was slightly more than double when they were certified. If you have a small commercial aquaponics farm grossing, let's say \$20,000 per year selling non-certified produce, then you will make an additional \$20,000 or so gross income from growing the exact same amount of certified produce! It's a no-brainer decision to spend the \$1,200 or so per year certification cost when it brings in an extra 20 grand per year gross income.

Defining "Organic" Precisely And Accurately:

- ❖ **"Organic" is a word that the US Government owns.** Its meaning, and where you can and can't use it, is strictly defined by Federal law. Although all organic certification in the US is by definition USDA (United States Department Of Agriculture) Organic Certification, the USDA doesn't do any certification or inspection of farms themselves.
- ❖ **Those services are performed by private companies** who have been certified as "Accredited Certifying Agents" by the National Organic Program (NOP) of the USDA. These are the "organic certifiers" you will deal with when certifying your farm. There are currently 50 domestic certifying agents and 41 foreign certifying agents (more on which agency/company to pick to certify your aquaponic farm in a bit).
- ❖ **The NOP is administered under a federal law** that defines who can use the word "organic" on their produce and under what conditions it may be used. You may label your produce organic without requiring certification, and sell up to \$5,000 worth per year without risking any penalty. However, you're playing with fire if you decide your produce is "organic", and you don't need to abide by their "silly" law, and sell more than \$5,000 worth a year.

Fines Are NOT Fine!

- ❖ **There is a provision in the law for an \$11,000 fine** per occurrence (which can mean per box or bag of produce), when produce is labeled organic but does not come from a USDA organically certified source. If the USDA finds 50 bags of lettuce from your farm labeled "organic", determines you are not certified, and decides to play hardball, you could be liable for a half-million dollar fine. It has nothing whatsoever to do with what

you may think organic is, the same way you can't exceed the speed limit just because you want to. There are consequences to violating any law.

- ❖ **We thought the \$5,000 per year wasn't necessarily a hard and fast rule** until a student commented on it at one of our Commercial Aquaponics and Solar Greenhouse Trainings: he had been selling produce at a Sacramento, California Farmer's Market. A USDA certification compliance inspector came up and "flashed the badge" and required him to show his sales records for the year to date. Fortunately, he was right at \$4,840 for the year at the end of that day! We now know **they audit**; we don't know how often or where. It's **an \$11,000 fine** for each "occurrence", which means if you have ten bags of lettuce labeled "organic" on your table, and you're over the \$5,000 mark for that year, you could have yourself a \$110,000 fine! Do the smart **and** lawful thing!

Get USDA Organically Certified Anywhere In The World:

- ❖ **Your aquaponics systems and farm** can get USDA Organic Certification anywhere in the world through the USDA-accredited certification agencies, not just in the USA. You just have to pay the inspector's expenses for the visit to your farm. You may engage a certification agency located anywhere to certify you, you are not limited to the ones in your State or located nearby.

How Do I Get Certified?

- ❖ **Getting certified is a simple process:** after building aquaponics systems that only use NOP-approved materials and devices according to the **OMRI** (Organic Materials Review Institute) guidelines, you fill in a certification application and send it to your agency of choice. After your farm is fully planted out and in operation, you can schedule a visit by one of your agency's certification inspectors. If you've taken our Commercial Aquaponics Training, or bought one of our Commercial DIY packages, we'll help guide you through this process at no additional charge (in most instances).
- ❖ **Although any organic certification agency** can theoretically certify you, it is much easier and less expensive to get certified through one of the two certification agencies we used, because they already have experience certifying aquaponics systems (Oregon Tilth (<http://tilth.org/> on the web) and Organic Certifiers (<http://www.organiccertifiers.com/> on the web)).
- ❖ **As a bonus**, Organic Certifiers will now certify systems built by people who use our designs, **even before vegetable production begins!** (Contact Cheryl Hudson, Cheryl Hudson, cheryl@organiccertifiers.com). If you use another agency that doesn't already have experience, you run the risk of a long and expensive certification process, and/or the possibility that the agency will find they are uncomfortable certifying you (due to their lack of experience). The worst-case scenario may be that they pull out of the certification process entirely before certifying you, and you will have wasted your time.

What Are "Materials And Devices"?

- ❖ **OMRI publishes two free manuals (well, they used to be free!):** one lists all the **materials** approved and restricted under the NOP; the other lists all the **devices** approved and restricted under the NOP. What are materials and devices? A **material** is something that gets consumed in the process of growing, and needs to be replaced, like seeds, fish food, fertilizer, potting mix, pesticides, or chemical additives that we add to our systems as supplements. A **device** is something that is durable and does not get consumed in the process of growing, like the pipes the water flows through, the plastic pots we plant in, the rafts in our systems, and the liner of the aquaponics troughs.

What Does Certification Cost?

- ❖ **Our original certification cost us a little more**, because we had to pay for the inspector to fly to our island, accommodations and car, plus the inspection fee; but now our yearly reinspection fee is \$800, because an inspector lives on a nearby island. This is a small price to pay for a farm that can produce \$150,000-plus of certified crops per year; especially when you consider the fact that that \$150,000 worth of crops would only be worth \$70-80,000 if it wasn't certified!

How To Prevent Certification

- ❖ **Now that we've outlined how to get certified, we'll outline how to prevent it!** It's easy: just use a material or a product that is **not** approved by the OMRI guidelines (you'll find the Products and Materials lists here: <https://www.omri.org/omri>). If you use something in your system that is not OMRI approved, such as a construction material, a liner material, a fertilizer, a pesticide, or a chemical additive, for example, the certifying agency does not have to certify you no matter how much you argue in favor of it. Once you've incorporated this device or used this material in your system, you are already on the wrong side of the fence.
- ❖ **Even if you now do whatever the certification agency says you have to do to be certified, and make the necessary changes in your systems and methods, it doesn't automatically jump you to the right side of the fence.** The agency may still require you to go through **up to** a two-year **"transition period"** before your farm can be certified. During this transition period, you must operate your farm with only approved materials and products, yet during this two years, you are prohibited from claiming your produce is "organic", and you can't get organic prices for it. You can't even use the words "transition organic", for this will trigger the same penalties and fines that come into play if you are not certified at all.

Trying To "Trick" The Organic Certification Authorities:

- ❖ **To the best of our knowledge,** the only aquaponics systems in the world that are currently USDA Organically Certifiable are our deepwater raft system designs using our operating protocols. Also to the best of our knowledge, there are **no** certified media-based systems, aeroponics systems, flood-and-drain systems, vertical systems, or NFT systems. If one exists that we don't know about, please inform us, with the name of the farm and their certifying agency.
- ❖ **This is important,** because a claim of certification that omits the name of the certifying agency is a worthless, meaningless claim. We know of at least two farms whose soil-grown product is certified, but whose aquaponic produce is **not**. These two still claim (in violation of Federal law) that their aquaponic produce is also organic. We simply asked their certifying agencies. There are also farms that use "Organic" as part of the farm's name, even though they are not certified. One of these has received a "cease and desist" order from the NOP to stop using the word organic, and may be facing fines and other penalties as well.

Design Your Own (We Did)

- ❖ **Making a hasty decision** when setting up your farm, or designing your own aquaponic system and **hoping** it will be certifiable can cost you two years of organic certification while you go through a transition period, and up to half your potential income for those two years. This is why knowing about organic certification before beginning a commercial aquaponics venture, and investing in systems and methods you know are certifiable is so important.
- ❖ **If you are sure your design** is the way to go, then all you have to do is convince the certification agencies that it is certifiable. The questions to ask yourself then are: "How much is certification worth to my operation as compared to my proprietary design?", and "How long will it take, and how much will it cost me, to convince a certification agency that my aquaponics systems are certifiable?", and finally "Am I certain they will certify me?".
- ❖ **We tried to help a well-known "organic"** aquaponics farm in a big city get certified once; they had been "trying" to get certified for almost a year at that time. We even told them we wouldn't charge anything for the help. When we asked how their systems were set up so we could suggest changes as necessary to meet the certification requirements, we were told "We need to certify the systems exactly as they are; we can't change anything". Knowing how the certification agencies work, we said "good luck", and went our own way. In the face of this attitude, we couldn't do anything to help, and now, four years after our offer, they have gone out of business.

Who Teaches Certification For Aquaponics Systems?

- ❖ **Anyone who's been there before.** Find an aquaponics farm that is organically certified and get them to help you out. But, please understand one thing: **IT'S EASY!** If the people you get to help you try to make it expensive and long-winded, and tell you you can't learn it from anyone else, they're trying to take advantage of your relative lack of knowledge to make you pay. Most of what you need to know is contained in this manual section.
- ❖ **Seriously: how can anyone who has never** been organically certified teach you how to get organically certified? We feel we're a good choice to teach you how to get your aquaponics system certified, since during our courses we teach you so many other important things in addition to certification. We've been certified since August 2008. We currently know of fifteen of our students who have been organically certified.
- ❖ **To the best of our knowledge** (4-20-2014), there is only **one** aquaponics farm (besides ourselves and our students) that is currently operating an organically certified aquaponic system. If you know someone with an aquaponics system that is USDA certified organic, and we're not aware of it, we apologize, and would like very much to be corrected; with the name and contact information for the farm, and the certifying agency that certified their aquaponics system (not their farm, it's not the same thing!). If they tell you they "can't tell you the name of their certifying agency", they're probably lying to you, as the name of the farm and the certifying agency is public domain information, by US Federal law.
- ❖ **We suggest you contact Organic Certifiers** (Of California) or Oregon Tilth (Of Oregon) for organic certification for aquaponics systems. We certified through both of them. They are the first we know of to certify aquaponics operations. We've also heard that CCOF(California Certified Organic Farmers) does aquaponics system certification, but don't have any personal experience with them. Because none of the other certifying companies have done so yet, the learning curve for them is likely to be a lot harder, and they will be cautious and slow, or impossible to certify through. The contact information for both agencies is available by Googling their names on the web at <http://www.organiccertifiers.com/> for Organic Certifiers and www.tilth.org for Oregon Tilth.
- ❖ **A copy of our Organic Certification Application** is in your DropBox files in the "Certifications" folder, along with much more information on organic certification. If you build and operate your system the way this manual recommends, you will have no difficulty getting organically certified. At this point, **Organic Certifiers** of Ventura, California **has said** that they will certify a system **while it's still under construction**, if built according to our plans. Email Cheryl Hudson, at cheryl@organiccertifiers.com for more details.
- ❖ **IMPORTANT!** If you make changes in any material or process, you **may not be able** to achieve certification, and **we may not be able to help**, so please contact us before you decide to make changes; we'll at least be able to give you an idea if they'll fly or not. Then it would be wise to get a written determination on your proposed changes from your certification agency **before** proceeding.

Property Selection And Approval Process For Organic Aquaponic Farms:

- ❖ **Why is this here? Because if you just buy or lease any old farm, it may be IMPOSSIBLE to get it organically certified. Only you've already spent your money. Now you have a farm that can only earn you half as much, but will forever have the same expenses as one that produces higher-value organic vegetables. You need to know what you're doing when you go shopping, or you're liable to step in some conventionally-farmed waste products and waste your money and time.**
- ❖ **We're going on the following assumptions here:**
 - 1. You are investing** what is a serious amount of money to you, and need a project that is finished and produces positive cash flow at that scale.
 - 2. You may want to expand** the project in the future to some as yet unknown size.

3. You agree that building your project in increments, with each increment beginning to generate cash flow within three months of finishing its construction, is a good idea.

4. You want a project that can be run by someone else, if possible: someone who already knows aquaponic farm operation, so it doesn't take all of your time, or require you to learn the technology or handle all the day-to-day operations yourself.

To accomplish these goals, you need a property that meets as many of the following criteria as possible:

A. 30-60 miles distance by refrigerated truck from a large population center (500,000 plus pop. would be nice, 150,000 a minimum).

B. A minimum of 1 acre of usable and reasonably level space, not including buildings, and preferably gravel or dirt; although a reasonably flat asphalt parking lot will work. You do not need fertile soil or what's normally considered "farmland"!

C. A standard 200 amp, single phase 240 volt electrical service either already on the property or available within reason (Ex: 20 poles away from the main transmission line at \$3,000 per pole is not what I call reasonable). This is for aquaponics, processing, refrigeration, and building uses. If you plan on using artificial lighting to any great extent, you may need up to a 3-phase 750 kva service. This would be **really** expensive!

D. A city or county potable water service on the property or available. If the city or county allows you to use well water for the water in a "commercial kitchen", that would also be okay. Just make sure of this, otherwise you may not be able to do value-added processing because your local Health Department doesn't allow you to use your non-potable water for this purpose.

E. Pluses to keep an eye out for: existing greenhouses (of course!); additional acreage, even if just dirt, for you can do other agricultural projects there; existing warehouse or other steel structure with reasonably high ceiling inside (12 foot min); walk-in refrigerator or freezer; office(s); bathroom(s); other usable buildings or facilities that will fit in with your proposed operation. **DON'T** spend more money for these things unless they're **PERFECT** for what you plan; the additional outlay will have to be paid for somehow, and unless they save you money building these things, it's not a good idea to pay for more than what you need.

F. Minuses to keep a REAL eye out for: any kind of fuel or chemical tanks or indications that there were fuel or chemical tanks on the property, big brown areas in the grass, obvious chemical or oil spills on the ground surface (either inside or outside buildings). Pulp mills, explosives factories, etc, nearby may be deal-breakers for the certification agencies. Make sure you **get it in writing** from your certification agency before signing escrow!

If USDA Organic Certification is a necessary part of your business plan, you **must** be aware that the certification agency can impose up to a 250-foot "buffer zone" into your property from **any and all** neighboring properties it determines are under non-organic regimens. This usually means from neighboring farms that might be spraying chemical fertilizers or pesticides. However, we have no idea what they would do if you are directly downwind from a pulp mill or something of the like; in this case, **they may not even consider** certifying you. You get the idea; watch for auto painting shops and chemical factories upwind or nearby, etc.

If you have any questions about your proposed "farm", it's a good idea to begin the certification process with the certifying agency (this usually just means paying them your application fee), then after getting a preliminary determination from them, a good idea is to pay to get them out to the property and give you a determination in writing whether or not they can certify it, before signing the lease or buying the property. This will only cost \$1,500 or so in most parts of the US, which is way cheaper than trying to get rid of an uncertifiable property after you've purchased it. Questions?