



## **Recent vote by NOSB supports organic certification for aquaponics growers**

*Rossana Sallenave – Extension Aquatic Ecology Specialist*

Aquaponics, the growing of fish and plants by combining aquaculture (raising fish and other aquatic animals) and hydroponics (growing plants in water) in a bacteria-mediated symbiotic recirculating system, is becoming increasingly popular in New Mexico and elsewhere in the U.S., both for hobby growers as well as commercial operators. While aquaponics produce is grown without pesticides, because their use would harm the fish component of the operation, few are certified as organic. With the growing number of commercial aquaponics operations, the question as to whether food grown in aquaponics and hydroponics systems should be allowed to acquire organic certification has been hotly debated and continues to concern aquaponics growers wishing to enter the organic market. The financial benefits of being able to sell USDA-certified organic produce are substantial, due to the premium pricing it can demand with organic certification. However, up until now, organic certification in aquaponics operations has been problematic and there are few certified organic operations in the US. In fact, the issue of whether hydroponic and aquaponics operations should be certified as organic has been under discussion since 1995.

To understand the long-standing debate some background might be helpful. The Organic Foods Production Act of 1990 (OFPA) was enacted to establish national standards for the production and handling of foods labeled as “organic”. The Act authorized a new National Organic Program (NOP), which is to be administered by Agricultural Marketing services (AMS), an agency within the USDA. The goal of the program is to set uniform minimum standards for organic production by defining standard organic practices and by providing a national list of acceptable organic production inputs. The Act also established a 15 member National Organic Standards Board (NOSB) which advises the Secretary of Agriculture in setting the standards upon which the NOP is based and gives recommendations regarding implementation of the Act. The NOSB meets twice a year to discuss and vote on a number of topics pertaining to organics.

Currently, the USDA organic regulations do not prohibit hydroponic and aquaponics productions, and USDA organic certification can be obtained as long as the accredited certifier can demonstrate that certification complies with the standard. However, in 2010 the NOSB in a vote of 14 to 1 recommended that hydroponic and aquaponics production should not be eligible for organic certification because they grow plants without soil. According to the NOSB, the sound management of soil biology and ecology is the foundation upon which organic farming is based, and as such hydroponics and aquaponics should not be considered acceptable organic farming practices. Although the USDA NOP did not follow through with that NOSB recommendation, most accredited certifying agencies have been reluctant and have avoided certifying aquaponics and hydroponic operations because of the long-standing requirement that organic production must be in soil. In September of 2015, the Agricultural Marketing Services of the NOP appointed 16 members to a task force (the Organic Hydroponic and Aquaponic task force) to address this issue. The objectives of the task force were to describe aquaponics and hydroponic systems and practices, to examine how these practices align or conflict with OFPA and the USDA organic regulations with scientific support, and prepare a report which it would present to the NOSB in the fall of 2016.

Aquaponics growers have argued that the traditional views of organic production held by soil-based producers have not kept up with current science and innovations in agriculture, and have pointed to the lack of scientific evidence to support claims by soil organic producers that hydroponically produced vegetable are inferior both in quality and nutritional value, and that they should not qualify as organic. They claim that if they are using products labeled for organic production, why should the resulting produce and plants not also be organic. They further argue that organic produce should be more accessible and available to everyone, and that those rules discriminate against growers in desert environments, urban environments and other areas without access to fertile soils or an abundance of water. On the other side of the debate, traditional soil-based organic farmers contend that the core philosophy of organics is based on maintaining healthy fertile soils. They argue that little research has been conducted to prove or disprove the importance of soil-borne minerals and microorganisms to plant health, so certifying soilless systems as organic is premature. They also claim that hydroponics growers are more focused on profit than the quality of their produce. But the financial issue is also of concern to soil-based organic producers. There is a very strong financial incentive to keep hydroponics and aquaponics out of the organic market to maintain higher prices and avoid competition. Traditional soil-based organic advocates argue that allowing aquaponics and hydroponics to remain in the Organic Program would mean that traditional soil-based organic farms would find it increasingly difficult to compete with industrial-scale hydroponics.

All this brings us to the most recent vote that took place after the Fall meeting in 2017. On November 1, 2017 thousands of farmers across the country waited to hear of the decision of the National Organic Standards Board

(NOSB) as to whether hydroponic and aquaponics producers could remain eligible for Organic Certification. In an 8 to 7 vote members of the National Organic Standards Board rejected most of a series of proposals that would have started the process to change current US organic standards in order to revoke the certification of hundreds of growers around the world that incorporate container, hydroponic and aquaponic production tools on their organic farms and production locations. Ultimately, a majority of the Board recognized that expanding the organics program to be inclusive of various types of farming promotes innovation and smart resource use. So for the time being, hydroponic and aquaponics production systems are still eligible for organic certification while USDA considers the NOTB decision.

### **Steps to getting certified**

For any aquaponics facility to be certified organic, it must be certified by a USDA-accredited certifying agent and maintain compliance with the program. What I learned at the recent Aquaponics Workshop at this year's Aquaculture America Conference is that while aquaponics systems are eligible for certification, it does not mean that all accredited certifiers will certify them. Out of the 80 accredited certifiers only 17 will certify aquaponics production systems. Another important note is that organic certification only applies to the plant portion of aquaponics production systems, the fish portion is not eligible for organic certification.

Here are the steps to getting certified:

1. Find a USDA-accredited certifier that will certify the plant portion of your productions
2. Apply to that certifier
3. Pay the required fee
4. Use only substances and materials approved by the Organic Materials Review Institute and NOP regulations
5. Have your production facility inspected with all pertinent information made available

### **Certified Naturally Grown**

For those growers interested in selling organic produce but who are put off by the paperwork and costs involved in obtaining USDA certification, "Certified Naturally Grown" offers a grassroots alternative. CNG is a US-based farm assurance program certifying produce, livestock and apiaries for organic producers who sell locally and directly to their customers. Founded in 2002, CNG is operated as a non-profit corporation, and is a simpler to administer and less costly alternative to the USDA's NOP certification. CNG farmers are required to submit to an annual inspection and pay an annual fee. However, unlike with the NOP, where inspections must be conducted by a USDA-accredited certifying agent and third party inspectors, CNG farms may be inspected by other CNG farmers, non-CNG farmers, extension agents, master gardeners and customers, with CNG farmers

being ideal. Inspection forms can be read and downloaded, and completed applications and signed declarations are available on the CNG website. Additionally, all CNG farms are subject to random pesticide residue testing.

More information on the latest NOSB decision, on USDA-organic certification and on CNG certification for aquaponics can be found at the websites listed below.

## References

Certified Naturally Grown <https://certified.naturallygrown.org/>

Karst, T. 2017. Updated: Organic board: aeroponics out, hydroponics, aquaponics in. The Packer  
<https://www.thepacker.com/article/updated-organic-board-aeroponics-out-hydroponics-aquaponics>

National Organic Standards Board (NOSB) Hydroponic and Aquaponic Task Force Report July 21, 2016  
<https://www.ams.usda.gov/sites/default/files/media/2016%20Hydroponic%20Task%20Force%20Report.PDF>

Organic Materials Review Institute, <https://www.omri.org>

USDA Agricultural Marketing Services Accredited Certifying Agents  
<https://www.ams.usda.gov/services/organic-certification/certifying-agents>

## **UPCOMING EVENTS**

**Indian Livestock Days**  
**May 9 – 11, 2018**

**US Dairy Extension & Training Consortium**  
**May 14 – June 22, 2018**  
**Clovis, NM**

**NM Youth Ranch Management Camp**  
**June 10 – 15, 2018**  
**CS Ranch – Cimarron, NM**

**US Beef Academy**  
**May 14 – 18, 2018**  
**Corona, NM**

The College of Agricultural, Consumer and Environmental Sciences is an engine for economic and community development in New Mexico, improving the lives of New Mexicans through academic, research, and extension programs. New Mexico State University is an equal opportunity/affirmative action employer and educator. NMSU and the U.S. Department of Agriculture cooperating.