

Frequently Asked Questions (FAQs)

Certification Issues

Question: I have an area on my conventional farm that has not been sprayed for several years. I am considering putting it into organic crops next year. What do I need to know?

Answer: If the area has not had any prohibited substances (i.e., synthetic fertilizers or pesticides, including Round-Up™, and no transgenic crops, such as Bt-corn) for a period of three years, you can certify your organic crops as organic on this land. Otherwise, the National Organic Program (NOP) requires that a 36-month period must occur between the last application of a prohibited substance and the harvest of a certified organic crop.

Question: This year, I had floodwaters from an adjoining river bottom cross over my certified organic land. Do I need to have my land tested to remain certified?

Answer: This is a question you should take up with your certification agency. They will visit your farm and collect information before they make the determination. If they suspect that there may have been contamination from prohibited substances in the floodwaters, they are permitted by NOP rules to take soil and plant samples for analysis. If they determine that contamination from river waters will be a routine occurrence on the land in question, they will suggest that you consider another area for organic production.

Organic Seed Issues

Question: I am new to organic farming and would like to plant as much organic seed as possible on my farm, as I realize this is a requirement by the NOP rules. I tried to obtain all organic seed this year, but for some varieties I wanted, only conventional seed was available. Can I still plant these seeds and be certified organic?

Answer: The NOP requires that you source organic seeds. If you cannot find the variety you need for a specific market, you can get an exemption, but you must document that you made a good faith effort to obtain organic seed. If you plant conventional seed, it must be untreated and not transgenic (GMO-free).

Question: I plan on planting organic seed for all my crops, per NOP regulations, but I would like to be prepared about any potential yield drag from organic seed. Is this known?

Answer: The organic seed companies that are selling hybrid seed are using the best genetics available in a non-transgenic form, so you can expect similar yields as you would get with conventional seed.

Typically, any reduction in yield is due to lower soil fertility or weed pressure, which can be alleviated with good management practices (see soil fertility and weed management FAQs).

Soil Fertility Issues

Question: I understand there is usually a transition period after converting land from conventional to organic where the soil fertility is not adequate for high yields. What steps can be taken to alleviate this problem?

Answer: The issue of soil fertility is very site-specific. Oftentimes, there is adequate soil fertility to avoid any transition yield drag. Taking your most fertile land (e.g., land following alfalfa) into organic production is often recommended to get the best start possible. You also can plant oats and alfalfa together for one year, then keep in alfalfa the next year, for example, to build as much soil fertility before you plant a high nitrogen-demanding crop like corn. Adding compost and manure to your fields will also help build up organic matter and increase soil fertility. For the latest research results on obtaining equivalent yields in organic systems, visit: <http://extension.agron.iastate.edu/organicag/researchreports/nk07ltar.pdf>.

Question: Can soybeans alone provide enough nitrogen (N) for a high-yielding organic corn crop that is next in the rotation?

Answer: Soybeans will scavenge *soil* nitrate N in addition to fixing their own N from atmospheric N (40-75% of N used by soybean plant is derived from soil), so in addition to making nitrogen for the next crop, soybeans also utilize soil N, thereby depleting soil N for the next crop. The supply of N from soybeans for next crop in rotation is considered "a wash" (not adding; not taking N) so it is recommended that either a N-adding crop (like alfalfa) and/or compost applications be used for optimal corn performance.

Question: Can I use on my certified organic land manure from a neighbor's pit from confined hog production? What about feedlot cattle manure?

Answer: While the ideal farming system recycles manure from animals raised organically on your own farm, farms without livestock must rely on outside sources for manure. Manure from conventional sources is permitted in the U.S., provided that any raw manure is applied (and ideally, incorporated) at least three months ahead of harvest of an enclosed seed (in a husk or pod), or four months for exposed plant parts (e.g., fruits and vegetables). The recommended system is manure application in the spring when soils have warmed to

at least 50 degrees, and there is no danger of run-off. For crops where harvests occur in the fall, spring application would allow 8 months for manure assimilation and breakdown, leaving little worry for contamination of the harvested portion. For summer harvests, apply manure in the previous fall, or use fully composted manure (special regulations govern the heat and turning requirements in a compost pile).

Question: Are there commercial organic fertilizers available for certified organic production?

Answer: Yes, there are many commercial organic fertilizers available for certified organic production. Check the Organic Materials Review Institute (OMRI)'s on-line listing of organic fertilizers: <http://www.omri.org/>. If you check other on-line sources for companies selling organic fertilizers, be sure and ask if their product can be used in certified organic production. You should test the product in a small area the first year before making the investment to treat the entire crop. In some cases, the N-P-K (nitrogen-phosphorus-potassium) in the bagged fertilizer is not any greater than composted manure you can make on your farm. Always remember the need for rotating crops and adding soil-building legumes in addition to fertilizer/manure applications.

Question: I would like to add more cover crops to my farming system. What is recommended for Iowa conditions?

Answer: Cover crops require additional knowledge and management skills outside of typical corn and soybean production systems. The simplest cover crop combination in wide use on Iowa organic farms is some combination of a small grain (oats, wheat, barley, spelt) and a legume (alfalfa, red clover) ahead of a nitrogen-demanding crop. There are other combinations in use or under experimentation, including hairy vetch and rye, which adds a great deal of nitrogen (up to 100 lb/acre) but can be difficult to kill. Rye alone is a good cover crop before soybean: its residue contains allelopathic chemicals, which help mitigate weed seed development. Rye also adds biomass and carbon to the soil.

Weed Management Issues

Question: What about organic no-till: is it a feasible option?

Answer: Organic no-till is still in an experimental phase, but several locations have experienced much success with the system. The idea is that cover crops are planted in the fall or previous season. In the spring, the cover crop is rolled, or crushed with a 2,000 lb. steel roller, that breaks the water-holding vessels of the plant and results in death

if the cover crop is rolled at the appropriate stage: anthesis or pollen shed for grasses; 20% bloom for legumes. Once the cover crop is rolled, a commercial crop is planed or drilled into the cover. In our research in Iowa, transplanted tomatoes have worked very well in this system, and soybean is more amenable than corn. Up to 45 bu/acre were obtained in a no-till organic soybean field, but in years of drought or dry weather, yields can drop to 20 bu/acre. The cover crop, even when crushed to a mulch, has proven too competitive for an acceptable corn yield, although the Rodale Institute has had success with corn following crushed hairy vetch (see http://www.rodaleinstitute.org/no-till_revolution).

Question: What practices are available for an organic farmer to use (mechanical, biological, landscape ecological) to manage weeds in an organic soybean field?

Answer: There are many practices available for managing weeds in an organic system. Prevention as a primary goal can be achieved by planting a cover crop of rye (1 bu/acre) ahead of the soybeans and rotating soybeans with small grains. Planting at a high population rate (175,000 to 200,000 seeds/acre) and planting into warm soils to facilitate quick germination will help ensure a soybean crop that is competitive against weeds. Tillage is usually needed and can consist of rotary hoeing or tine weeding 2 to 5 days after planting when weeds are in the white-thread stage. Once the soybeans have emerged, they should be rotary hoed again, and if weed pressure is high, then again 3 or 4 days later. Two row cultivations should be sufficient if good rotary hoeing has been accomplished. "Walking" the soybeans to remove large weeds, such as velvetleaf and giant ragweed that have escaped cultivation, is important to prevent weed seed production in future crops. Another strategy used to control weeds in soybeans is to avoid fall tillage and allow weed seeds to be eaten by mice and carabid beetles during the winter. Keeping cover over neighboring fields is also effective in attracting mice to the area.

Horticultural Crops

Question: Can apples be grown organically in Iowa?

Answer: Yes, organic apples can be grown but require a good deal of management and care. The best method to avoid extensive spraying is the use of apple scab-resistant varieties, like Redfree, Jonafree, Liberty and the newest one, WineCrisp™ (see <http://www.sciencedaily.com/releases/2009/01/090122100824.htm>).

If you plant scab susceptible varieties, you will need to spray with sulfur products many times during the growing season. Sulfur can be detrimental to plant growth and prolonged exposure can affect our respiratory systems. Once the scab problem is addressed, there are

numerous other insect and disease pests that must be managed, including codling moth, plum curculio, leaf rollers, and, depending on weather conditions, cedar apple rust, flyspeck, and sooty blotch disease. There are organic alternatives for all these problems (for details, go to ISU Extension organic webpage: <http://extension.agron.iastate.edu/organicag/researchreports/apples08.pdf>). Orchard floor management is particularly effective in plum curculio management. This can be accomplished by human pick-up of damaged fruit on the orchard floor, or in certain places (Wisconsin, Michigan, New Zealand—for other beetles), hogs, guinea fowl, and/or sheep have been used to clean up damaged fruit, especially after early fruit drops and after harvest. This technique helps break the cycle of larvae/pupae and the over-wintering of second-generation adults. Physically shaking trees to dislodge beetles onto tarps under trees or covering individual fruits with paper protectors has been replaced in larger orchards with spraying with kaolin clay as a beetle repellent and irritant and/or an organic insecticide like Entrust™.