



Task Title: Critical Thinking – Organic Farming

OALCF Cover Sheet – Practitioner Copy

Learner Name: _____

Date Started: _____

Date Completed: _____

Successful Completion: Yes ☐ No ☐

Goal Path: Employment ☐ Apprenticeship ☐

Secondary School ☐ Post Secondary ☐ Independence ☐

Task Description: The learner will read an article about organic and conventional farming and answer questions.

Main Competency/Task Group/Level Indicator:

- Find and Use Information/Read continuous text/A1.3
- Communicate Ideas and Information/Write continuous text/B2.3

Materials Required:

- Pen/pencil and paper and/or digital device

Learner Information

Learning about the different ways foods are grown can help people make informed decisions about what to eat and what to buy at the grocery store.

Read "Organic Foods: Are they safer? More nutritious?"

Organic Foods: Are they safer? More nutritious?

Once found only in health food stores, organic food is now a regular feature at most supermarkets. And that's created a bit of a dilemma in the produce aisle. On one hand, you have a conventionally grown apple. On the other, you have one that's organic. Both apples are firm, shiny and red. Both provide vitamins and fiber, and both are free of fat, sodium and cholesterol. Which should you choose?

Conventionally grown produce generally costs less, but is organic food safer or more nutritious? Get the facts before you shop.

The word "organic" refers to the way farmers grow and process agricultural products, such as fruits, vegetables, grains, dairy products and meat. Organic farming practices are designed to encourage soil and water conservation and reduce pollution. Farmers who grow organic produce and meat don't use conventional methods to fertilize, control weeds or prevent livestock disease. For example, rather than using chemical weed killers, organic farmers may conduct more sophisticated crop rotations and spread mulch or manure to keep weeds at bay.

Here are some key differences between conventional farming and organic farming:

Conventional	Organic
Apply chemical fertilizers to promote plant growth.	Apply natural fertilizers, such as manure or compost, to feed soil and plants.
Spray synthetic insecticides to reduce pests and disease.	Spray pesticides from natural sources; use beneficial insects and birds, mating disruption or traps to reduce pests and disease.
Use synthetic herbicides to manage weeds.	Use environmentally-generated plant-killing compounds; rotate crops, till, hand weed or mulch to manage weeds.

Give animals antibiotics, growth hormones and medications to prevent disease and spur growth.	Give animals organic feed and allow them access to the outdoors. Use preventive measures — such as rotational grazing, a balanced diet and clean housing — to help minimize disease.
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The U.S. Department of Agriculture (USDA) has established an organic certification program that requires all organic foods to meet strict government standards. These standards regulate how such foods are grown, handled and processed.

Any product labeled as organic must be USDA certified. Only producers who sell less than \$5,000 a year in organic foods are exempt from this certification; however, they're still required to follow the USDA's standards for organic foods.

If a food bears a USDA Organic label, it means it's produced and processed according to the USDA standards. The seal is voluntary, but many organic producers use it.

Products certified 95 percent or more organic display this USDA seal.



Products that are completely organic — such as fruits, vegetables, eggs or other single-ingredient foods — are labeled 100 percent organic and can carry the USDA seal.

Foods that have more than one ingredient, such as breakfast cereal, can use the USDA organic seal plus the following wording, depending on the number of organic ingredients:

100 percent organic. To use this phrase, products must be either completely organic or made of all organic ingredients.

Organic. Products must be at least 95 percent organic to use this term.

Products that contain at least 70 percent organic ingredients may say "made with organic ingredients" on the label, but may not use the seal. Foods containing less than 70 percent organic ingredients can't use the seal or the

Task Title: CriticalThinkingOrganicFarming_SP_A1.3_B2.3

word "organic" on their product labels. They can include the organic items in their ingredient list, however.

No, "natural" and "organic" are not interchangeable terms. You may see "natural" and other terms such as "all natural," "free-range" or "hormone-free" on food labels. These descriptions must be truthful, but don't confuse them with the term "organic." Only foods that are grown and processed according to USDA organic standards can be labeled organic.

The answer isn't yet clear. A recent study examined the past 50 years' worth of scientific articles about the nutrient content of organic and conventional foods. The researchers concluded that organically and conventionally produced foodstuffs are comparable in their nutrient content. Research in this area is ongoing.

Many factors influence the decision to choose organic food. Some people choose organic food because they prefer the taste. Yet others opt for organic because of concerns such as:

Pesticides. Conventional growers use pesticides to protect their crops from molds, insects and diseases. When farmers spray pesticides, this can leave residue on produce. Some people buy organic food to limit their exposure to these residues. According to the USDA, organic produce carries significantly fewer pesticide residues than does conventional produce. However, residues on most products — both organic and nonorganic — don't exceed government safety thresholds.

Food additives. Organic regulations ban or severely restrict the use of food additives, processing aids (substances used during processing, but not added directly to food) and fortifying agents commonly used in nonorganic foods, including preservatives, artificial sweeteners, colorings and flavorings, and monosodium glutamate.

Environment. Some people buy organic food for environmental reasons. Organic farming practices are designed to benefit the environment by reducing pollution and conserving water and soil quality.

One common concern with organic food is cost. Organic foods typically cost more than do their conventional counterparts. Higher prices are due, in part, to more expensive farming practices.

Because organic fruits and vegetables aren't treated with waxes or preservatives, they may spoil faster. Also, some organic produce may look less than perfect — odd shapes, varying colors or smaller sizes. However,

organic foods must meet the same quality and safety standards as those of conventional foods.

Whether you go totally organic or opt to mix conventional and organic foods, be sure to keep these tips in mind:

Select a variety of foods from a variety of sources. This will give you a better mix of nutrients and reduce your likelihood of exposure to a single pesticide.

Buy fruits and vegetables in season when possible. To get the freshest produce, ask your grocer what day new produce arrives. Or check your local farmers market.

Read food labels carefully. Just because a product says it's organic or contains organic ingredients doesn't necessarily mean it's a healthier alternative. Some organic products may still be high in sugar, salt, fat or calories.

Wash and scrub fresh fruits and vegetables thoroughly under running water. Washing helps remove dirt, bacteria and traces of chemicals from the surface of fruits and vegetables. Not all pesticide residues can be removed by washing, though. You can also peel fruits and vegetables, but peeling can mean losing some fiber and nutrients.

Original article: <http://www.mayoclinic.org/organic-food/art-20043880>

Work Sheet

Task 1: List the three environmental benefits of organic farming.

Answer:

Task 2: List the six things that organic farmers cannot use on their farms.

Answer:

Task 3: List four ways organic farmers control weeds on their farms.

Answer:

Task 4: List the three main concerns that drive consumers to purchase organic foods.

Answer:

Task 5: List three downsides to buying organic food.

Answer:

Task 6:

“Environmentally generated plant killing compounds” are used on organic farms to kill weeds. These sprays are manufactured in a lab and sold to organic farmers. Conventional farmers use synthetic herbicides to kill weeds. Synthetic herbicides are manufactured in a lab and sold to conventional farmers to kill weeds. Both are toxic enough to kill unwanted plants.

In your opinion, is the organic farmer’s weed spray safer than the conventional farmer’s weed spray? Write a paragraph using facts from the article to support your opinion.

Answer:

Answers

Task 1: List the three environmental benefits of organic farming.

Answer:

- Soil conservation
- Water conservation
- Reduced pollution

Task 2: List the six things that organic farmers cannot use on their farms.

Answer:

- chemical fertilizer
- synthetic insecticides
- synthetic herbicides
- antibiotics
- hormones
- medications

Task 3: List four ways organic farmers control weeds on their farms.

Answer: Any four of the following

- use environmentally generated plant killing compounds
- rotate crops
- till
- mulch
- weed by hand

Task 4: List the three main concerns that drive consumers to purchase organic foods.

Answer:

- Consumers want to limit exposure to pesticide residues
- Consumers want to limit exposure to food additives including preservatives, colourings, flavourings and monosodium glutamate
- Consumers want to support environmentally responsible practices including reducing pollution, conserving water and improving soil quality

Task 5: List three downsides to buying organic food.

Answer:

- Cost (more expensive)
- May spoil faster (no waxes or preservatives are used)
- Products may look less than perfect

Task 6:

“Environmentally generated plant killing compounds” are used on organic farms to kill weeds. These sprays are manufactured in a lab and sold to organic farmers. Conventional farmers use synthetic herbicides to kill weeds. Synthetic herbicides are manufactured in a lab and sold to conventional farmers to kill weeds. Both are toxic enough to kill unwanted plants.

In your opinion, is the organic farmer’s weed spray safer than the conventional farmer’s weed spray? Write a paragraph using facts from the article to support your opinion.

Answers will vary.

If the learner answers YES, possible reasons to support that opinion are:

1. The organic farmers’ weed spray is naturally occurring
2. The organic farmers’ weed spray is toxic to plants and not necessarily toxic to humans
3. There are fewer pesticide residues on organic food compared to conventionally grown food.

If the learner answers NO, possible reasons to support that opinion are:

1. Both organic and conventional pesticides are toxic. They both kill plants.
2. Both organic and conventional pesticides have residues.
3. Neither pesticide exceeds the government safety threshold.

Performance Descriptors

Levels	Performance Descriptors	Needs Work	Completes task with support from practitioner	Completes task independently
A1.3	integrates several pieces of information from texts			
	manages unfamiliar elements (e.g. vocabulary, context, topic) to complete tasks			
	identifies the purpose and relevance of texts			
B2.3	writes texts to present information, summarize, express opinions, present arguments, convey ideas or persuade			
	selects and uses vocabulary, tone and structure appropriate to the task			
	organizes and sequences writing to communicate effectively			
	uses a variety of vocabulary, structures and approaches to convey main ideas with supporting details			

This task: Was successfully completed ☐ Needs to be tried again ☐

Task Title: CriticalThinkingOrganicFarming_SP_A1.3_B2.3

Learner Comments:

Instructor (print):

Learner (print):