

# Nutrition SENSE

UNIVERSITY OF MASSACHUSETTS – DINING SERVICES

VOLUME 7 | ISSUE 3 | NOVEMBER 2007



## We're on the web:

[www.umass.edu/diningservices/nutrition](http://www.umass.edu/diningservices/nutrition)

### NOVEMBER *quick tip*

Nutrients in produce are similar in local, organic and those treated with pesticides.

### DIETITIAN *on duty*

Get free nutrition advice in the DCs at the following times!

5:30-7:30 pm

Nov. 7 – Franklin DC

Nov. 14 – Hampshire DC

Nov. 28 – Worcester DC

*Hillside Room*

Dec. 5 – Berkshire DC

Dianne Z. Sutherland RD,LDN  
Dining Services

Worcester Dining Commons – 3rd Floor  
110 Stockbridge Road  
University of Massachusetts  
Amherst, MA 01003

Phone (413) 545-2472

Fax (413) 545-9673

Email [dietitian@mail.aux.umass.edu](mailto:dietitian@mail.aux.umass.edu)

Be Smart. Eat Smart.



**Nutrition**  
UMASS AMHERST DINING SERVICES

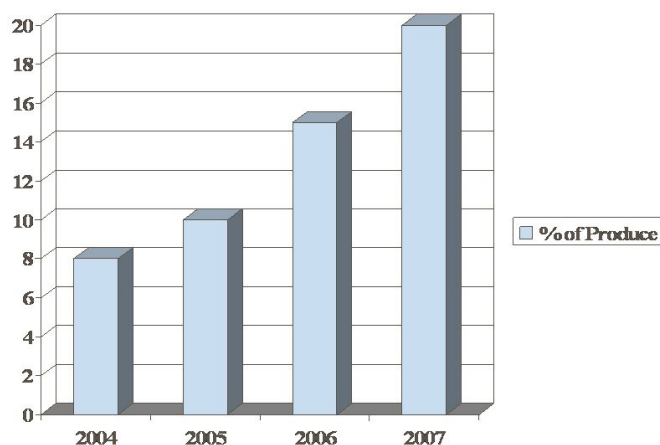


Don Sabola, Chef at Worcester DC and Ryan Pipeczynski, Asst. Manger of Berkshire checking out the fresh local beans.

## Local Produce

UMass Dining Services takes a stand on many issues surrounding our food supply. We are committed to a socially responsible program that supports the campus and local communities. We work hard to provide food which is fresh, seasonal and minimally processed.

UMass Dining Services purchases 20% of the produce directly from local farmers and our goal is to provide up to 25% by year 2009. The chart below shows how UMass Dining Services has been working with local vendors, specifically Czajkowski Farms and Plainville Farms in Hadley, MA to increase the purchase of local produce .





Fowler and Huntting out of Hartford, Connecticut, is the produce vendor where UMass Dining Services obtains the other 80% of produce needed to feed our student customers. Approximately 20% of their produce is obtained through local farmers including the Massachusetts farms listed below:

### Why does Fowler and UMass Dining Services support locally grown produce?

- Encourages farmland preservation, enhances our historical culture and beautifies our state.
- Supports our family farms and provides a true economic value to our local communities.
- Leads to a cleaner environment with less fuel burned when shipped from nearby farms.
- Promotes the use of less pesticides and chemicals, and provides for produce that is fresher and healthier.
- Promotes an added economic value with lower transportation costs.

Chicopee/Chicopee Falls, MA McKinstrey Market	Granville, MA E.A. Jensen
Deerfield/South Deerfield, MA Ciesluk Farm Stand Chang Et Sons Galenski Farm Happy Valley Farm Harvest Farm Lapa Farm Manheim Farm Williams Farm	Hadley, MA Joe Czajkowski Farm Jodie Zgrodnik Farm Hibbard Farm Plainville Farm Twin Oaks Farm
East Longmeadow, MA Meadowbrook Farm	Harvard, MA Carlson Orchards
Feeding Hills, MA Cecchi Et Son's Don Stepanik Richard Stepanik Farm	Hatfield, MA Malinowki Farms Szawlowski Farm
	Sunderland, MA Charles Smiarowski
	Whately, MA Long Plains Farm, Whately, MA

## Pesticides

- Are substances or mixture of substances that can be used for the prevention, control, and lessening of the damages caused by a pest.
- Are regulated by the Environmental Protection Agency (EPA). Use of pesticides can have unintended effects on the environment (air, water, soil, plants, etc.)
- Are used to control organisms which are considered harmful.
- Prevent sickness in humans that could be caused by either moldy food, diseased produce, or insects.
- Save farmers money by preventing crop losses to insects and other pests. In order to sell or use a pesticide, it must be regulated by the Environmental Protection Agency (EPA).
- Will not be found on organically grown produce as it is pesticide free.

### Are Pesticides Harmful?

When a crop is treated with pesticides, a minimal amount of pesticide can remain in the crop until after it is harvested and could pose a very little health risk. That is why it is important to thoroughly wash your produce prior to consumption. If you are still very concerned about pesticides, peeling fruits and vegetables is also another option, but keep in mind that this may remove some nutrients.

Overall, before a pesticide can be used commercially, it is approved by the EPA in order for it to be sold, supplied, used, stored or advertised. Also, the amount of pesticides being used are declining as more effective methods of pesticide control are being practiced more accurately (Integrated Pest Management). This means that the levels and toxicity of all pesticides used are at a pretty safe level.

## What Is Integrated Pest Management?

Integrated Pest Management, or IPM, is a method used to control pests in an environmentally responsible manner. By reducing our dependence on pesticides, IPM protects the environment and our health and also saves money. IPM can be applied wherever pests are found and combines different techniques to prevent pest damage without harming the environment. Fowler and Huntting purchases produce from California and Florida farmers, both of which use IPM. Cold Spring Orchards, the UMass orchard, also uses IPM. Chemicals that kill pests are applied only when other methods will not work. The least hazardous pesticide and the lowest effective amount of pesticide should be used.

## What is Organic Food?

- Organic food refers to the way products are grown or raised and processed.
- Organic food is grown and processed without using most conventional pesticides, herbicides or fertilizers.
- Organic foods cannot be irradiated or genetically engineered.
- Organic farmers strive to conserve soil and water to enhance environmental quality for future generations.

### Common Definitions/Logos:

**100% Organic:** All ingredients are organic

**Organic:** The product is made with at least 95% organic ingredients (excluding water and salt)

**Made with Organic Ingredients:** The product is made with 70-95% organic ingredients. The label will state which ingredients are organic.

**Irradiated:** This is the process of small doses of radiation that may be used to remove bacteria in food or other organic material.

**Genetically Modified Organism (GMOs):**

An organism whose genetic material has been altered using genetic engineering techniques. The main use of GMOs is in research that addresses questions in biology or medicine, for production of pharmaceuticals and industrial enzymes, applications aimed at improving human health or in this case, agriculture.

**Natural:** No artificial ingredients have been added and are no more than minimally processed. Natural foods can include organic foods; however, not all

## UMass Cold Spring Orchards

Joe Sincuk, Farm Manager, has been at the Orchard for 32 years. Over time, the Orchard has been working with entomologists at UMass, Amherst to understand the lifecycle of insects to reduce the use of pesticides. Here are some techniques that are currently being used:

**Traps** that look like tree stumps set around the perimeter of the orchard. In the spring, an insect comes out of the woods and climbs a tree trunk and settles on the small tree branches and injures the fruit. UMass Entomologists developed a trap that looks like the base of a tree trunk for these insects to climb. The staff at the Orchard checks them and once several traps have more than 5 insects, the staff will use a spray on just 1/2 acre of apple trees to kill this insect, rather than spraying ten acres of trees.

**Red Sphere.** After studying the apple maggot, a red sphere that is the size of an apple was developed by another entomologist at UMass that attracted a specific type of fly. The male insect is looking for food and to mate. The surface of this sphere is sticky and has the scent of female and it catches 95% of the males, thus having less sprays being used on the trees. Cold Spring Orchard places these spheres every 20 feet to attract these insects. This is a non-chemical control which is more costly than spraying with pesticides.

### Mowing at a specific time.

There is one insect that feeds on clovers instead of grass and by understanding the life cycle of this insect, mowing is done at a specific time when the insects are reproducing to eliminate them and thus not having to spray more often.



<http://www.coldspringorchard.com/>

**Calcium mixture** is applied to apples to increase the cell structure of the apples. There is not enough calcium to increase the intake of calcium to humans, but it preserves the flavor and quality of the apples.

These are only a few of the techniques that Cold Spring Orchards use so minimal amounts of insecticides and fungicides are administered only when necessary to prevent further injury of the fruits. UMass Dining Services is thrilled to be working with UMass Cold Spring Orchards in providing local produce with minimal pesticides. Joe Sincuk states, "When purchasing local produce from our orchard, you know we care about the existence of our neighborhood."

natural foods are organic.

To a farmer, organic means "healthy soil."

To a consumer, organic means "no pesticides."

### Advantages of Organic Produce

- An Alternative to genetic engineering in agriculture
- Protect ground water supplies and avoid runoff of chemicals that can cause "dead zones" in larger bodies of water
- Health of the planet and its inhabitants
- Soil health



### Disadvantages of Organic Produce

- Higher cost of organic foods
- Increases your exposure to biological contaminants and putting you at greater risk for food borne illness
- Organic farmers can't produce enough to feed everybody

### Organic Food Costs 10–40% more because it...

- Requires more strict regulations than conventional foods
- It is more labor and production intensive
- Generates a smaller scale of produce which increases price

### Does Organic Food Contain More Nutrients?

Although there have been some studies that show organically grown food has some higher nutrients, other studies show little to no difference. Overall, there is very little nutritional differences among local, organic or produce treated with pesticides.

*Special Thanks to:* David Yandow and Richard Adams, Fowler and Hunting, <http://www.fowlerproduce.com> · Joe Sincuk, UMass Cold Spring Orchards <http://www.coldspringorchard.com> · Alyssa Leuchte, UMass Dietetic intern, Class of 2008, for some research on pesticides. · Taylor Geer, UMass Nutrition Major, Class of 2008, for research on pesticides and organic produce.

### Is Organic Food Harmful?

According to public perception, organic food is the healthy option, but what the public does not see is risk of contamination with potentially harmful toxins and bacteria. Increased levels of "natural pesticides" (found in organic produce) could even be as dangerous as synthetic chemicals. Bacterial and fungal contamination is more likely to result in organic products than those treated with pesticides.

### Does Organic Actually Mean Pesticide Free?

No, a few synthetic pesticides are allowed to be used in organic products and very small amounts of residues may actually end up in the final product.

The United States Department of Agriculture does not claim that organic food taste better, is healthier, or safer to eat than conventional food. Organic food and conventional food are grown, handled, and processed very differently.

### In Conclusion:

UMass Dining Services supports local farmers by purchasing as much local produce as possible in order to provide the freshest produce available. Due to the expense, we do not offer organic, plus we do not want to have the possibility of a foodborne illness outbreak. Produce served in the dining commons are local or may be treated with pesticides using IPM, but due to the regulation of pesticides, they are safe for human consumption.

### Consuming More Than 5 Servings of Produce Daily Can:

- Help prevent certain types of cancer
- Help prevent heart disease and stroke
- Help control blood pressure and cholesterol
- Help avoid diverticulitis

*Winner of ten national awards from National Association of College and University Food Services:*

**"Outstanding College and University Menu for Residential Dining"**

in 2000, 2001, 2002, 2004, 2005, 2006, 2007

**"Most Creative Nutrition Promotion"**

2003, 2004, 2006



Go to our website:

[www.umass.edu/diningservices/nutrition](http://www.umass.edu/diningservices/nutrition)  
for more specifics to improve  
your eating habits

*The nutrition information in this newsletter is for educational purposes only. Information in this newsletter shall not be construed as medical, nutritional, fitness or other professional advice nor is it intended to provide medical treatment or legal advice. We recommend you meet with the appropriate professional advisors regarding any individual conditions.*