Organic Foods and Food Safety Issues

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Wild Oats Markets

- $900+ in annual sales
- 102 total stores in 25 states and BC, Canada
- Nation's second largest organic and natural foods retailer
- Full-service supermarket format
- Commitment to Organics: Goal is approximately 70% organic in produce and bulk foods sections
- Overall store has approx. 40% of products with organic ingredients

Food Safety Issues as Relates to Organic Foods

Concerns

- Microbiological and food pathogens
- Pesticides and food safety
- Antibiotics and hormones

Microbiological Safety

Myth: Organic food is less safe than conventional due to use of manure

Reality: Organic foods are required to use only composted manure except under strictly controlled conditions; conventional agriculture has no such restrictions

Use of Manure is Strictly Regulated

Raw animal manure, which **must be composted** unless it is:

(i) Applied to land used for a crop not intended for human consumption;

(ii) Incorporated into the soil not less than 120 days prior to the harvest of a product whose edible portion has direct contact with the soil surface or soil particles; or

(iii) Incorporated into the soil not less than 90 days prior to the harvest of a product whose edible portion does not have direct contact with the soil surface or soil particles;

Use of Compost is Strictly Regulated

Composted plant and animal materials produced though a process that

(i) established an initial C:N ratio of between 25:1 and 40:1; and

(ii) maintained a temperature of between 131 F and 170 F for 3 days using an in-vessel or static aerated pile system; or

(iii) maintained a temperature of between 131F and 170F for 15 days using a windrow composting system, during which period, the materials must be turned a minimum of five times.

Microbiological Safety

- Production of organic foods must meet all pertinent FDA regulations
- There is NO evidence that organic foods have higher microbial counts or pathogen levels than conventional foods
- Composting has been shown to reduce pathogens and parasites (see handout)

Overview of Pesticides in Organic and Conventional Foods

Key Children's Foods Still Contain Residues

- **Apples**
- **Pears**
- **Peaches**
- **Grapes**
- **Green beans**
- **Tomatoes**
- **Peas**
- **Strawberries**
- **Spinach**
- **Peppers**
- **Lettuce**

Pesticides in Organic Compared to Conventional

- Conventional fruit are 3.6x as likely to contain residues and conventional vegetables are 6.8x more likely to contain residues
- Only 13% of organics contained detectable residues vs. 71% of conventional foods
- Organic is less likely to have multiple residues
  - 7% of organic versus 54% of conventional

Source: Baker, et al, 2002. Food Additives and Contaminants. 19(5): 427-446.

Eating Organic Lowers Pesticide Risks

- A recent study showed that 2-5 year olds consuming organic had lower levels of organophosphate metabolites in their urine
- Those consuming conventional food had 8.5x the levels of those consuming organic
- Researchers concluded the following:

" Dose estimates….suggest that organic diets can reduce children's exposure levels…, thereby shifting exposures from a range of uncertain risk to a range of negligible risk. Consumption of organic produce represents a relatively simple means for parents to reduce their children's exposure to pesticides."

Source: Curl, et al 2002. Environmental Health Perspectives.

Eating Organic and Natural Meats Reduces Consumption of Antibiotics and Hormones

- Growing consensus that antibiotics in feed are an issue, possibly contributing to antibiotic resistance
- Organic regulations do not allow the use of antibiotics in feed or hormone implants
- Consumers are becoming increasingly aware of antibiotic resistance issues