



**State of Wisconsin  
Department of Agriculture, Trade and Consumer Protection  
Division of Food Safety**

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## **FACT SHEET FOR FOOD PROCESSORS**

### **Yeast, Mold and Mycotoxins**

#### **Background**

**Food borne yeast and molds (fungi) are a large and diverse group of microorganisms that comprise several hundred species.**

**The ability of these organisms to attack many foods is largely due to their versatile environmental requirements.**

- **The majority, but not all, require free oxygen for growth.**
- **Their pH requirement is broad, ranging from pH 2 to pH 9.**
- **Their temperature range is also broad, ranging from 10° to 35°C (50° – 95° F).**
- **Moisture requirements for mold are quite low (water activity of 0.85 or less), with yeast requiring a slightly higher water activity.**

#### **Significance**

**Both yeast and mold can cause deterioration or decomposition of foods.**

**Abnormal flavors and odors may be produced. The food may become slightly or severely blemished and slime, white cottony mycelium or highly colored mycelium may develop.**

**Virtually any type of food product may be affected – from raw products such as nuts, beans, grains or fruits to processed foods.**

**Contamination of foods by yeast or mold can result in substantial economic losses to the producer, the processor and the consumer.**

**Several foodborne molds, and possibly yeast, may also be hazardous to human health. Some molds have the ability to produce toxic metabolites known as mycotoxins.**

**Most mycotoxins are stable compounds that are not destroyed during food processing or home cooking. Even though the generating organisms may not survive heat treatment, the preformed toxin may still be present.**

**Other foodborne yeast and molds may elicit allergic reactions or may cause infections. Although most are not infectious, some species can cause infection, especially in immuno-compromised individuals, such as the aged or debilitated, HIV-infected individuals or persons receiving chemotherapy or antibiotic treatment.**

#### **Prevention**

**Use of high quality raw ingredients in food products.**

**Proper sanitation and handling practices.**