Well Preserved

The Spoilers

Microorganisms and enzymes are the principle causes of spoilage in home food preservation. Because molds, yeasts, and bacteria are found everywhere in the air and soil, on people and animals, and on many surfaces, proper food preservation methods must be used to prevent them from causing food spoilage.

The effects of these microorganisms can range from soft, slimy textures and unpleasant odors to food poisoning that can be deadly.

Molds can be recognized by their fuzzy masses that can be nearly any color. Molds need air and moisture to grow. They thrive in the acid conditions provided by food. Molds can easily be destroyed by the high temperatures used in processing. Some molds produce invisible mycotoxins, which are harmful to eat. This is why it is important to process all canned foods including pickles, jams, and jellies.

Yeast masses in or on food appear as slime, scum, or murkiness. Yeasts may cause foods to ferment and can be recognized by gas bubbles, froth, or foam. These are easily de-stroyed at temperatures between 140F and 180F.

Some bacteria can be benefi-



Bacteria can multiply rapidly with millions growing on a gram of food in just a few hours. At this concentration they can spoil food or cause a food-borne illness. Freezing food slows the growth of most bacteria. Care must be taken to prevent the growth of bacteria in food before it is frozen and after it is thawed.

Enzymes are naturally occurring substances in foods that promote the normal ripening process. If they continue to work after the fruit or vegetable reaches its ideal maturity, they will cause undesirable changes in color, texture, flavor, and nutrition. Flavor changes are sometimes described as haylike, bitter, oxidized, or old. Enzymes can be inactivated by heating foods to 170F to 190F.



Processing foods when canning or blanching vegetables for freezing stops enzyme reactions. Adding ascorbic or citric acid to fruits for freezing slows enzymatic action.

The following methods will prevent microorganisms and enzymes from causing spoilage. Use top-quality produce that is free of disease and mold. Can foods immediately after harvest. Wash produce thoroughly. Discard over-ripe produce. Use proper canning methods and equipment. Always pressure can low acid vegetables and meats. Acidfy tomatoes with lemon juice or citric acid. Sterilize jars that will be processed for less than 10 minutes. Use clean equipment and work surfaces. Follow a USDA tested recipe and process the food for the specified time. Adjust canning times and pressure for higher altitudes. Never taste a food you suspect of being spoiled. If in doubt, throw it out,

If you have food preservation questions, a home economist is available to answer questions on Wednesdays 10:00 a.m.1:00 p.m., call (717) 394-6851 or write Penn State Cooperative Extension, Lancaster County, 1383 Arcadia Rd., Rm.1, Lancaster, PA, 17601.

Safe Play Areas On Farms

MARSHFIELD, Wis. — Chil- not participating in farm work. dren are curious and perceive the farm as a giant playground. But children are not always able to recognize hazards.

If off-farm childcare is not an option, then it is important to have the safest place possible for children to play.

A new booklet from the National Children's Center for Rural and Agricultural Health and Safety (NCCRAHS) pro-vides the first comprehensive guidelines for designing and building a safe play area on a farm. NCCRAHS is a core unit of the National Farm Medicine Center, Marshfield Clinic and strives to enhance the health and safety of all children exposed to hazards associated with agricultural work and rural environments.

"Creating Safe Play Areas on Farms" is a 32-page illustrated document intended for safety professionals; rural and farm community leaders; and farm owners. Its focus is on children ages 2-10 who live on or visit farms and other agricultural settings.

Each year an estimated 33,000 children are seriously injured on U.S. farms. More than half the injuries are incurred by children

With effective adult supervision, safe play activities allow children to experience physical, emotional, social, and intellectu-

al development. The booklet defines a safe play area as a carefully planned, designated location with limited exposure to hazards such as traffic, agricultural production, and environmental concerns.

"Creating Safe Play Areas on Farms" is a unique resource that blends playground safety, farm safety, child development, environmental health, and adult supervision. Experts in these areas served as primary and secondary reviewers of content. Additional feedback was gathered at farm parent focus groups held in New York, Iowa, and Wisconsin.

Since the booklet's release, feedback from safety professionals and the farm community has been positive.

"Creating Safe Play Areas on Farms" is available for downloading in .pdf format at http:// research.marshfieldclinic.org/ children/. For information or to order free paper copies, contact the National Children's Center, (888) 924-7233.

Seeds Needed For Albania

TRUMANSBURG, N.Y. --George and Julie Holmes are collecting vegetable and flower seeds for Albania.

The Holmes put together "Family Seed Packets" for poor rural village families. The only seeds Holmes' can't use are onions, cabbage, lettuce, radishes, herbs, and sweet corn. Bulk

seeds are welcome also. Some of the seeds will be transported to Albania this summer and the remaining this winter.

For any information, contact the Holmes' at (607) 387-6538. Seeds can be mailed to them at 3220 Jacksonville Road, Trumansburg, NY 14886.

