

Are you planning to can or preserve peppers, garlic, or any other moist vegetable-in-oil this season? If the answer is yes, be sure to follow modern tested recipes and the recommendations from your Penn State Cooperative Extension office or US FDA Guidelines.

The United States Food and Drug Administration (US FDA) recommends that consumers not prepare any homemade vegetable-or spice-in-oil, - margarine or butter recipe for extended storage.

Why is there concern about canning vegetables in oil?

Peppers, onions, garlic, spices and oils of all types are low in acid. Tomatoes are borderline acid. Air cannot readily pass through oil, so moist, low-acid vegetables covered with oil are in a low-oxygen, low-acid environment. This makes them potentially susceptible to the growth of Clostridium botubacteria linum spores. Clostridium botulinum bacteria are widespread in the environment and may be found on various kinds of produce, including peppers and garlic. The spores of Clostridium botulinum are harmless in an air or oxygen environment, but in an oxygenfree or air-free environment such as oil, the spores, if present, could multiply and produce the deadly toxin that causes botulism.

Bacteria multiply quickly at room temperature. Each microorganism becomes 2 in 20 minutes, each of those 2 splits into 4 in 40 minutes, then into 8 in one hour, into 64 in two hours, into 4,096 in 4 hours and so on In just 8 hours one little bacteria has become 16,777,216 microorganisms?

If Clostridium botulinum is present and multiplies even to a small extent, toxins are given off that produce botulism, an often fatal foodborne illness

A moist vegetable-in-oil mixture sitting on a dining room table is at room temperature. If it is present, the bacteria that causes botulism has the perfect environment in which to produce its deadly toxin in a lowacid, low-oxygen, room temperature environment! We have no way to tell if Clostridium botulinum is present or not.

Refrigerating these mixtures can prevent the growth of any microorganisms present. Although vegetables can be made more acid by covering them with vinegar or lemonjuice before putting oil over them (and this is done commercially), few university-or US FDA-test consumer recipes exist that use this technique.

The US FDA recommends that consumers not prepare any homemade vegetables- or spicein-oil, - margarine or butter recipes for extended storage because the protective additives used in commercial mixes are not generally available for homemade products. Consumers are urged to refrigerate all such products and to dispose immediately of any products suspected to be spoiled or to have been stored unrefrigerated.

The "Let's Preserve Peppers" fact sheet is available from your local Penn State Cooperative Extension office and contains a recipe for making "Marinated Peppers" that is researched-tested. The recipe calls for a tested proportion of peppers, onion, garlic, horseradish and oregano, lemon juice and vinegar, and the mixture is processed in a boiling water bath canner to preserve it safely. Once opened, the product should be stored in the refrigerator and eaten within three weeks The "Let's Preserve Peppers" fact sheet also has modern tested recipes for pickled peppers, pickled hot peppers, pickled pepper-onion relish and

pickled corn-pepper relish To request 'Let's Preserve Peppers" send a self-addressed, stamped envelope to Berks County Cooperative Extension, Berks County Ag Center 1238 County Welfare Road, Leesport, PA 19533-0520.





(Continued from Page B6)

Following the Dietary Guidelines doesn't mean eliminating all your favorite lunchtime foods—but it does mean balancing the foods that are higher in fat, sugars, or sodium with other foods that contain less of these components.

#### **Brown Bag Checklist**

How does your brownbag lunch rate? Answer the following questions to see how many food groups your lunch usually includes

How often does your lunch contain the following

• Fruits or fruit juices?

• Vegetables or vegetable juices?

• Enriched breads, pastas, or other grain products (especially wholegrain types)?

• Lean meat, poultry, fish, or alternates (dry beans, peas, lent1ls, peanuts, and eggs)?

• Lowfat milk cheese or yogurt?

Now take a look at your answers Did your lunch include something from each of the groups almost daily or did some of your answers fall in the "sel-

(Turn to Page B8)

# **Hesston Forage Harvesters**

It's no big secret that wholestalk corn silage produces 40 to 50% more digestible energy over corn harvested as grain

The big secret is how economically and efficiently you can harvest it with a Hesston<sup>®</sup> 71555 Forage Harvester

#### More cutting power.

Designed for the averagesized livestock producer, this small machine packs a big punch Its "straight-thru cropflow" design puts more power into cutting, less into handling the crop That means greater field efficiency year after year The 7155S easily handles

tractor PTOs from 90 to

# The secret to low-cost forage harvesting.

# Model 7155S

175 hp, and is available with 2-row corn silage header or 6-foot-wide hay pickup

#### Fingertip control.

Electro-hydraulic remote control puts harvesting functions at your fingertips, and the 1,000 rpm drive assures big capacity This season, make silage more efficiently and economically – with a new Hesston 71555 See us today





Gutters Clogged and Overflowing? Not Looking Forward To Cleaning Them Out? Have Gutter ProTech™ Installed. Rain Gets In, Leaves and Debris Stay Out • Affordable • Attractive • Dependable • 32 Colors

#### STOLTZFUS FARM SERVICE, INC.

Rts 10 & 41, Cochranville, Pa 215-593-2407

# UMBERGER'S OF FONTANA, INC.

RD 4, Box 545, Lebanon, Pa **717-867-2613** 

**Ç. X** 

and the second second

## ZIMMERMAN'S FARM SERVICE

School Road, Rt 1, Bethel, Pa 717-933-4114

## D. W. OGG Frederick, MD - 301-473-4250

Westminster, MD - 410-848-4585

### HERNLEY'S FARM EQUIPMENT. INC.

2095 S. Market St , Elizabethtown, Pa. **717-367-8867** 

## C.J. WONSIDLER BROS.

Finland Rd , Quakertown, PA **215-536-1935 / 215-536-7523** Rts 309 & 100, New Tripoli, PA **610-767-7611** 

## STANLEY'S FARM SERVICE

RD 1, Box 46, Klingerstown, Pa **717-648-2088** 

