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HOME STORAGE

FRUITS *and* VEGETABLES

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Published and distributed in furtherance of the Acts of May 8 and June 30, 1914, by the Colorado State College, Extension Service, F. A. Anderson, Director, and U. S. Department of Agriculture cooperating.

FORT COLLINS, COLO.

MAY 1942

Home Storage of Fruits and Vegetables

By W. M. Case, Exine Davenport, and Inez M. Eckblad

Every successful and thrifty farm family desires efficient storage facilities for the farm-and-home-produced food supply. It is one way members of the family can contribute not only to their own welfare but to the health of the nation. Some farm families have produced as much as 80 percent of the food for their own use. Storage is quicker, easier, and cheaper than canning, drying, and freezing. Incomes this year may allow opportunity for many of the farm homemakers to make major improvements in food-storage facilities that will serve for leaner years that may come.

Effect of Storage on Food Value, Flavor, and Cooking Qualities.—Type, condition of the food, the length of time, moisture in the air, and temperature of storage all influence the loss of vitamins and the flavor and cooking qualities of fruits and vegetables. Riboflavin (Vitamin G.), and niacin are little affected during storage. Vitamins A, thiamin (Vitamin B₁), and ascorbic acid (Vitamin C) are gradually lost by fruits and vegetables in storage. Any bruising or chopping breaks down cell walls and speeds up vitamin C losses. Potatoes and other vegetables stored at improper temperature are inferior in quality.

What to Store

The condition and quality of any fruit or vegetable to be stored is of utmost importance. Vegetables for storage should be planted late in the season. Products should be ripe but not old. Leave vegetables in the ground as late as possible in the fall. If possible, harvest them when the ground is dry so that they will be free from dirt. Select for storage those that are of medium size, smooth and free from bruises and scars. Do not injure the crown of root vegetables when topping. Leave at least one inch of the tops so that decay will not enter vegetable through scars. Apples, pears, pumpkins, and squash should be stored with stems attached.

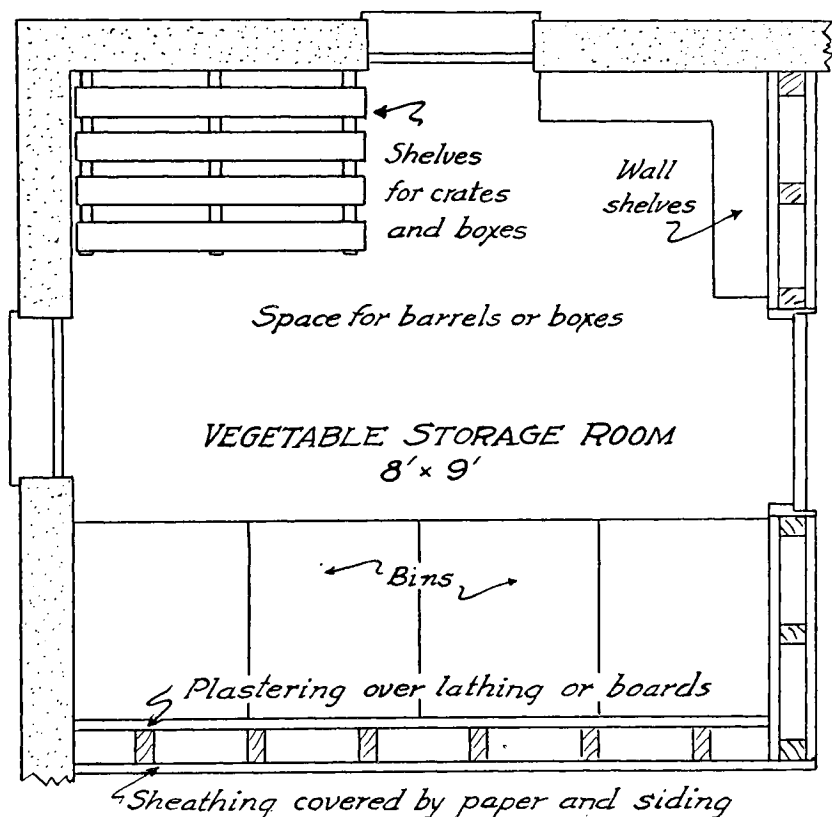
How to Store

Much food spoilage is due to inadequate facilities for storage. How does your food storage rate?

1. **Is it located near the kitchen?** Sometimes it is possible to locate the first-floor storage room so that only one door at grade level is needed and the kitchen side is reached by a pass window. A wide shelf on the storage-room side should be placed on a level with the sill.

2. Is the storage place clean? Disinfect your storage cellar and containers before using them.

3. Do spaces accommodate different-sized containers without waste head space? Is there room for crocks of different sizes—for field crates? Or slatted bins? For empty containers?

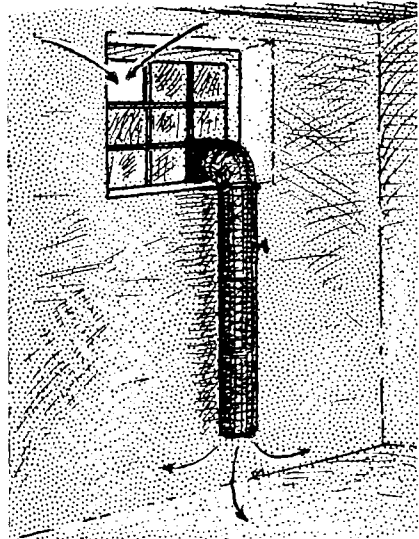


4. Is the storeroom, cellar, or pit frost proof? Proper insulation is essential. Inexpensive methods of constructing basement partitions or double-walled rooms is possible. Storage pits can be frost-proof if properly constructed, even at 35 degrees below zero.

5. Do you store your larger quantities of food to be kept for a long time where temperature and moisture are suitable for them?

a. **Basement Storage.**—Keep your storage room dark. If there is a window in the room, equip it with an opaque shade. Artificial lighting of a storeroom is desirable. A length of stove

pipe and an elbow, running from the lowest pane of the window to a point about 6 inches above the floor, will admit cool, fresh air. This pipe should contain a damper so that it can be closed in cold or freezing weather. One of the highest panes in the window, or another window, should then be removed to allow the warm air to escape. During severely cold weather, these should all be closed to prevent freezing.



A dirt floor is preferred but a concrete floor can be covered with a 2-inch layer of moist sand. This sand should be sprinkled occasionally to prevent a dry atmosphere.

Root vegetables can be packed in sand in boxes or bins.

Squash, pumpkins, onions, and cabbage should be placed on racks or shelves away from the floor so that air can circulate freely around them (see p. 4). Celery, head lettuce, cabbage, and other such vegetables can be transplanted.

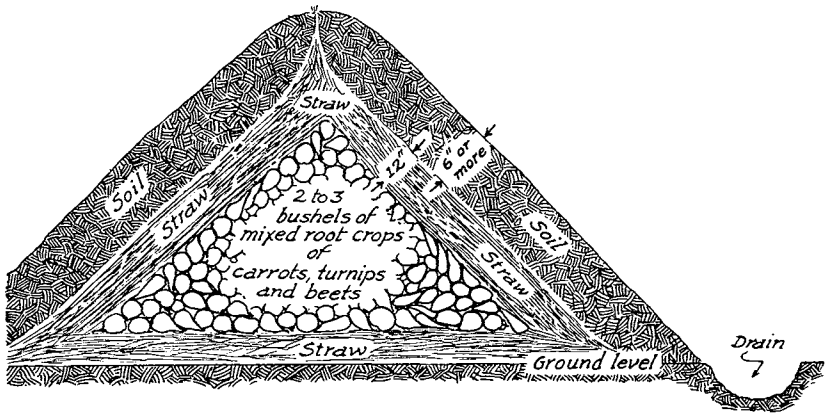
The easiest method of storing small quantities of celery is to move them into the basement of the house or cellar. Build a frame-work about 36 inches square, out of 10 or 12-inch boards on the cellar floor. In this, place about 4 inches of sand or light soil and water liberally. Set the plants in rows about 6 inches apart and tightly packed in the row. Water the roots whenever the soil becomes dry, taking care not to wet the leaves or stalks. This may be done with a short hose or funnel. Do not allow the soil to become dry, as it will cause the celery to shrivel and be lost in 2 or 3 days' time.

In all these methods, a slow growth will continue while the plants are in storage. Celery should not be stored near turnips,

cabbage, onions, or other vegetables with strong scents as it will absorb the odor of these vegetables and lose its flavor.

b. The outdoor cellar may be anything from a simple, roofed pit to a concrete, tile, or pole structure. These may prove quite expensive and plans should be followed in building to insure ventilation. If such a building is being contemplated, write to the Superintendent of Documents, Washington, D. C., and ask for Farmers' Bulletin No. 879, Home Storage of Vegetables. If the farm already has an outdoor cellar, then the procedure suggested for the house cellar is proper for the placing of vegetables. Be sure to watch the ventilation closely.

c. Outdoor Storage Mound.—In preparing a pit, select a high, well-drained spot for the vegetables will spoil if water collects in the bottom. Dig a pit 6 to 10 inches deep and about 30 inches square. Place a layer of straw or leaves in the bottom about 4 inches deep. Pile about 2 bushels of mixed vegetables, or enough for a family's week or 10-day supply (beets, carrots, turnips, potatoes, etc.), on this straw in a conical or round pile and cover with about 6 inches of straw. Sufficient dirt should then be put on to cover the straw about 2 to 3 inches deep. This



dirt should be as fine as possible and free from stones. At the top of the pile the straw should be pulled up and allowed to stick out through the dirt to act as a chimney for ventilation. Later, when the weather turns colder, additional dirt can be added until it is about 8 inches thick and covers the ventilator. In localities where the weather drops to 15 degrees F. below zero or more, a 10-inch layer of strawy manure should be placed over the mound.

Several of these mounds may be built, and when the vegetables are needed, an entire mound may be torn down and all the contents removed to a protected porch or basement until used. It is better to have several small mounds than to have one large one.

Fruit and Vegetable Storage

Product	Humidity	Temperature	Method (Use late varieties only)
Beets, Rutabagas, Turnips, Salsify	Medium	34°-40° F.	Use medium sizes. Pack in moist sand in boxes or bins. Store in outdoor mounds or house cellar.
Cabbage	Medium to Dry	34°-40° F.	Choose winter variety. 1—Turn head bottom side up in sun for a few days to allow cut to heal; then right side up to let outer leaves dry. Store on shelves in basement. 2—They may be trenched or pit buried. 3—Transplanted.
Potatoes, Apples	Moist	34 degrees F. to 38 degrees F. Warm potatoes 60 to 65 degrees for 2 or 3 weeks before using.	Pile in outdoor mounds or pits or in dark cellar bins. Gather late-keeping varieties.
Celery and Chinese Cabbage	Moist	34°-40° F.	Choose winter variety. 1—Trench storage satisfactory where freezing is not too deep or snowfall too heavy. 2—Cellar storage in sand with root moisture. Store away from strong-flavored vegetables.
Peppers, Cauliflower	Medium	34°-40° F.	Harvest before frost. Pull plants and hang in frost-free place.
Tomatoes, Egg Plant, Broccoli	Medium	34°-40° F.	Harvest before frost. Pull vines and hang in frost-free place. Green tomatoes will ripen if picked and placed in the sun.
Parsnips, Carrots	Medium	34°-40° F.	1—Dig, top as directed and bury in a mound. 2—Can be packed in sand.
Pumpkins, Squash	Dry	50° to 75° F.	Gather before frost. Leave stem. Store in dry, airy, frost-proof place.
Onions	Dry	34° to 38° F.	Pull when tops are yellow and dry. Leave in sun or airy shed without sunburning before topping. A sprout not dry will cause rotting in storage. Spread to allow air circulation.