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THE GARDEN CALENDAR

A radio discussion by W. R. Beattie, Bureau of Plant Industry, delivered in the Department of Agriculture period of the National Farm and Home Hour, broadcast over a network of 48 associate NBC radio stations, Wednesday, September 27, 1933.

Hello everybody. In my recent garden calendar talks I have repeatedly suggested the desirability of storing or canning any fruits and vegetables that you may have in your gardens or orchards at the end of the season. Today, I want to give you a little more specific information about storage temperatures and how to handle the various products in storage.

Potatoes are our most important storage crop, sweet potatoes in the south and white potatoes in the north. The way the potatoes are handled and the temperature at which they are stored has everything to do with their keeping in storage, so let's learn all we can about handling them. Many of you northern folks will be digging and storing your white potatoes during the next two or three weeks so I am giving you the results of some recent experiments made by Dr. Wm. Stuart and his associates. They found that where you store your potatoes at a temperature of 55 or 60 degrees for about two weeks after digging that any bruises or breaks in the skin will heal over with a corky growth that seals up these breaks. If the potatoes are placed directly into a very cold cellar these scars will not heal over but become blackened and may cause the potatoes to rot.

Following the curing period the potatoes store best at a temperature around 45 to 50 degrees. As you know, potatoes contain large quantities of starch and if they are stored at temperatures below 45 degrees a part of the starch turns to sugar so that when you bake or boil them in the winter they are soggy and have an unpleasant sweet taste. If the potatoes are kept in cold storage, say around 36 degrees, this change of starch to sugar goes on very rapidly. You folks who store your potatoes in cellars are - perhaps without knowing it - providing almost ideal conditions for when you first store the potatoes the temperature of your cellar is usually around 60 degrees. Later as the weather becomes colder the temperature of your cellar drops to perhaps 45 to 50 degrees which is almost ideal for retaining the cooking quality of your potatoes. Of course you don't want the temperature of your potato storage cellar to remain high enough to cause the potatoes to form sprouts, but you can usually control the temperature by ventilating the cellar. Another point, a certain amount of moisture in the air of your potato cellar will prevent the potatoes shriveling.

You may recall that about three weeks ago I told you southern folks about the Louisiana plan for building cheap but effective sweet potato storage houses out of pine poles notched together at the corners and with the cracks chinked with clay mud like an old fashioned log cabin. I can remember when there was scarcely a sweet potato storage house in the whole south and when a considerable percentage of the sweet potato crop rotted in outdoor banks. Now the

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Southern States are dotted with sweet potato curing and storage houses and sweets are kept almost 100 per cent perfect through the winter. The main points are to allow the potatoes to become reasonably mature, dig and handle them carefully to avoid cutting or bruising, then cure them in a special house or a room at a temperature of 80 or 85 degrees for a period of about two weeks. When the sweet potatoes are dug they are full of sap, and the skins are tender. By curing them with stove heat and giving them plenty of ventilation during the curing period, you get rid of this surplus moisture, and the skin of the potatoes becomes sort of velvety to the touch.

At the close of the curing period you should stop the heat, and allow the temperature of the storage room or house to fall to about 55 degrees or from 50 to 56 degrees. In case of a sudden cold snap a little fire should be started in the stove to keep the temperature from going very much below 50 degrees. If any of you folks have a nice crop of sweets coming on and no particular place to store them, I would advise you to fit up a room in some building on the place, or build a cheap storage house for them. I have had fair success storing a few bushels of sweets on a high shelf in the kitchen. Recently I have stored my sweets on a table near the furnace in my basement. Any room that is dry and well ventilated and where heat can be provided for curing the sweets will be all right but the room must be well insulated so that it can be kept around 52 to 56 degrees during the coldest weather. It is not difficult to store sweet potatoes if you will provide a suitable place to store them and then handle them carefully.

So much for the potatoes. In the case of the root crops like carrots, beets, turnips, salsify and parsnips, we want a low temperature or only a little above freezing. As a matter of fact these roots have a freezing point that is slightly below 32 degrees and water will freeze before they will. The average cellar is too warm and too dry for the storage of these root crops, and for that reason they usually keep best when stored in pits outdoors. Cabbage is another crop that keeps best at a relatively low temperature and so can be kept in pits or buried in trenches. Onions require low temperatures, but they must be kept dry and well ventilated. The freezing point for onions is between 28 and 29 degrees but it is not desirable to have the temperature go below 32 degrees and 36 or 38 degrees is better. Don't store your onions in bags or in boxes that prevent a free circulation of air. Mesh bags are all right but open crates are better.

Celery is one of the most difficult of our garden vegetables when it comes to its storage. It must be kept cold or it will rot and it must not freeze or it will rot anyway and so celery must be kept sort of betwixt and between. I have had the best success storing celery in a trench in the garden. First, I dig a trench about 14 inches wide and deep enough so that the tops of the celery will be about even with the level of the ground. I dig the celery with considerable soil adhering to the roots, and pack the bunches in the trench with a little soil about the roots. It is not a good idea to pack the bunches too closely together but leave a little air space. When the trench is filled I set a board on edge along each side and bank the earth on the outsides of the boards leaving the top of the trench open until freezing weather comes on, then I cover the trench with boards and finally with straw and earth to keep out the cold. I always leave one or two places open for ventilation except in

the coldest weather. When the celery is first set in the trench I give it a good watering but it seldom needs watering afterward.

Pumpkins and squashes are easy to store but they keep best when you handle them very much as I have suggested for sweet potatoes, that is, they should be cured at first with a little extra heat and then kept at a temperature of about 52 to 56 degrees. Pumpkins and squashes for storage should be brought in before they are frosted. I keep mine on a shelf near the furnace in my basement and they keep fine but I never like to have them badly chilled before they are gathered and I want them handled carefully to avoid bruising. The old method of throwing the pumpkins into the wagon-bed does not work so well when you want them to keep until mid-winter or longer. Another point, I don't like to have my squashes piled upon each other or even touch each other on the shelves where they are stored.

And here is a suggestion about storing tomatoes. In case you have any fully grown, green tomatoes in your gardens when frost comes, you can ripen them on shelves or in crates in your cellar or on your pantry shelves. Keep them between 50 and 65 degrees and the higher the temperature the faster they will ripen. You can wrap each tomato in a small square of soft paper or leave them unwrapped. A little water sprinkled over the wrappers occasionally will largely prevent the tomatoes shriveling. Another method is to pull the vines with the green tomatoes upon them and hang them in the cellar for the fruits to ripen. I sometimes have indoor ripened tomatoes until Christmas.

No doubt many of you have apples to store. Apples keep best at a temperature around 32 degrees but of course the only way to keep them at that temperature is to place them in a commercial cold storage. Under the most favorable home storage conditions we can keep our apples at a temperature around 36 to 40 degrees and if the apples are sound, are picked before they become overmature, and are handled carefully to avoid bruising we can keep them fairly well in a cold cellar. Some of the later keeping varieties might be buried in outdoor pits. In case you have some extra nice apples of the main winter varieties I would advise you to go to the expense of placing at least a part of them in cold storage.

Now here is an important point that I want to make very plain, and that is don't depend upon your sense of feeling to determine the temperature of your storage room or cellar. Get a good thermometer, hang it in your storage room and go by it. Another point, if you have products that are worth storing, by all means fit up a suitable place to store them. For you northern folks your best place is probably your cellar. For you southern gardeners an outdoor pit or dougout may be best. You folks in the Plains country can build sod houses or use your storm cellar if you have one. In all cases be sure that your pit or cellar will not flood during the heavy rains or wet seasons.

I feel that this matter of storing plenty of fruits and vegetables for home use this winter is very important, and if any of you are in doubt about the best methods of handling any particular crop I'd advise you to get in touch with your county agent or with the extension division of your State College, or if you write direct to me I'll see that you get all of the information that we have here in the Department at Washington. That's what I am here for and if you are fitting up a storage room or a special house I might be able to get you information that would enable you to avoid making mistakes in your building.

