Chapter Six - HARVEST AND STORAGE

Corm harvest days should be happy days. These days usually come in September or October, when cooler, bright blue weather is at its best. While you are turning up one plump corm after another, your thoughts can go in two directions; back to the summer just passed when the row you happen to be digging was an eye-catching sight of colorful blooms, and ahead to the promise made evident in each corm for next summer's beautiful flowers.

When you are digging unbloomed seedlings there is always the warm thought that this corm or that corm might produce the find of the century, the most beautiful ever, the most exotic, or the champion of champions! Well, of course, it doesn't happen very often, but we can dream, can't we?

About six weeks after the plants have bloomed, the new gladiolus corms will have matured enough to dig, if certain conditions have been met. One of these conditions is, when cutting flowers you have left a sufficient number of leaves growing on the plant. As it is with most plants, gladiolus obtain as much as 90 % of their food from materials manufactured in their leaves. In the case of gladiolus, there must be a surplus of this food over the normal growth needs of the plant so that they may store some away in the tissues of a large, firm mature corm for next year's growing. Another of the conditions is, a killing frost has not occurred between blooming and the six-week corm maturing period. If such a frost has come, you should dig the corms at once, whether fully mature or not. Although the foliage may be still capable of growth, they have really halted growth and in nature there is no middle ground, nothing stands still. It is either a living, growing organism or it at once becomes the prey of fungus, fusarium and bacteria, whose purpose it is to cause rot, decay and eventual return to humus.

If you have some early planted, early bloomed cultivars these may be allowed to remain undug beyond the six-week period if they are still growing vigorously. I have found the early dug corm much healthier and should be dug when the corm reaches maturity. If you can dig while soils are still warm, the corms tend to stay in dormancy longer during storage. Watch them closely and dig at the first sign of slow down. Never wait until the stalks are brown and dead.

There are features other than the corm health factors that make it best to dig at this time. Dead, dry, brittle stalks make poor handles by which to lift corms. When corms are allowed to remain too long in the ground, a greater percentage of the cormels become detached when digging They are either lost or require much searching for, a slow and tiresome process.

In some light soils, where corms were planted shallow, it may not be necessary to use any digging tool. By grasping the plant near the ground level and pulling straight up, the corm will come up easily. However, in heavier soils, loosening the soil along the row and bearing down on the handle of a spading fork to partially lift the corms, is the usual procedure. In some especially heavy soils, or if the digging must be done while the soil is wet and soggy, a loosening of the soil on both sides of the row will make the lifting job easier.

As fast as you lift the corms, you should remove the stalks, cutting as close to the corm as possible. A knife, garden shears or a pruner may be used for this purpose. Many growers recommend the stalk be broken or twisted off instead of being cut. Although you may have removed all plants that show disease, there is always the chance that you have missed some. Often, some plants will carry disease yet show no visible symptoms. When you use a knife, shears or pruner, some juices of these diseased plants are sure to get onto corms that were free from these troubles. They will now be infected or inoculated. You won't realize this at the time of infection but you will surely notice it in next year's glad patch. Breaking or twisting the stalk off not

only removes this element of possible infection but opens up the husks at the top of the new corm and allows moisture to escape more easily than through a cut stem stub. You will find this to be a great help in speeding the drying and curing of your corms. If your problem in storage is dehydration, cutting will be preferable so as not to expose the corm. A bottle of alcohol to dip your knife or shears in will lower the chance of spreading disease.

Washing the dirt off when digging helps dry and cure the corm, especially if there is mud or damp soil clinging to the roots. If you use a hose, use gentle pressure, just enough to wash the mud off without tearing at the husks. At this time you can discard any suspicious looking corms. Dipping corms soon after digging with approved fungicides, when the corm is fresh and tender, will allow the chemicals to be absorbed into the corm. A commercial corm dip works best, used as soon after digging as possible. Chemicals are frequently recertified so you should check the labels to make sure they are still recommended for use on gladiolus. Please follow the label closely. Experienced growers and County Extension offices will be of great help in choosing your chemicals for dipping.

Using glad tops and debris for compost is not a good practice. Disease and pests may be returned to your patch. Discarding this debris far from your glad patch area is best. Speedy curing is one of the *musts*. In warm weather you may spread the corms out during the day. If you are careful to cover them with something that is waterproof to protect them from the cold and heavy dews that are common during autumn nights, they can be left out for several days. A tarp may work if you have only a small quantity.

Glads grown from cormels may have less husk to protect the new corm. You must take care if corms are dug during bright sun and hot temperatures. Uncovered corms with little husk can sunburn and dark brown scars will form. I recommend a shaded area with good air circulation. I find that placing freshly washed and treated corms in trays with wire screened bottoms, stacked in an airy location, cure the corms in a short period of time. If air circulation is a problem, a few fans will do the job.

Depending on how quickly the corms are cured, and overall the early bloomers are ready first, you can snap off the old corm and roots with an easy pressure of the thumb within one or two weeks. The perfect time for this operation can only be learned by experience and testing. Under less than perfect curing conditions, it may take three to four weeks before the old corm will remove easily. When all is right, the old corm comes away easily, leaving a semi-callused scar at the base of the new corm. On certain cultivars you may be able to take off the old corm at the time of digging, but only if it will remove easily without tearing the new corm. Some experts say that this is a good practice, especially with large or jumbo sized corms. If this is not done immediately upon digging, trying to remove the old corm before the curing process is completed may result in tearing the corm and giving entry to bacteria and disease organisms. On the other hand, leaving the old corms on too long makes the old corm much harder to remove. In such cases, using something like an old teaspoon or screwdriver to pry the old corm off, will save having a sore or sprained thumb.

People who grow many glads generally have screen-bottomed trays in which to cure and store their corms. Shallow boxes and the mesh bag that onions, grapefruit, oranges, etc., come in, are also suitable for the beginner. Old nylons are great for storing small lots of cleaned corms and for holding cormels which are too small to be kept in a mesh bag.

Storage temperatures of 38 to 42 degrees are ideal. The colder the corms can be kept without freezing, the deeper will be their sleep during the winter. Corms that have been in deep dormancy in cold storage had best be brought into a warmer place at least a couple of weeks before planting, to help them awake from their dormancy. Most people do not have these conditions available. Usually the coolest location in your basement or crawl space, which will not freeze, will suffice. Consider partitioning off a cool Corner away from the furnace, but do leave space for air circulation. Never place corms in plastic bags where they can't breathe. They are still living things, only dormant. If your basement is hot, do not place the corms near the ceiling, but use the floor, where temperatures are cooler. If it is damp, then higher locations are recommended. I have heard stories where people have kept their corms stored at temperatures of 55 to 60 degrees with success, but I feel cooler is better. In these higher temperatures, thrip and dehydration in storage may be a problem.

To help subdue any fungus or rot organism that may have been carried into the storage area on the corms, they may be dusted with a commercial corm dust, purchased at your local garden center. This is not necessary if you dip them at digging time. Dusting should be done out of doors before bringing the corms into the basement. A respirator or a face mask that will afford protection should be used, for your safety. For insects and thrip. House and Garden spray can be used in the area around the corms. Remember, eggs can hatch in storage during the warming spring months, or anytime, if they are stored in a warm area. Whatever is used, aerosol can or dust, always read and follow the directions given.

There is not much more that can be said. Look over the corms occasionally during the winter. Remove any that show disease or decay. If excess dampness is evident, arrange for more or better ventilation or use some moisture absorbing material hung nearby.

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