

# Clustering Habit in Wealthy, Haralson and Minjon Apples

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with the underside of the petals lilac. The foliage is white and downy. Seeds will germinate in less than a week. Start seeds indoors and set out the plants after danger of frost as they are only half-hardy. The blooms have long stems and are long-lasting in water. Many colors never seen before in these fine flowers are found in the large-flowering hybrids.

Shasta daisies are good fillers-in after the peonies and iris have gone and before the late phlox appears. They flower abundantly and are good for cutting. Even the smallest garden should make room for at least one shasta daisy. Plants can be grown from seed and no special culture is required other than deep rich soil and a sunny location. To keep the flowers large lift and divide the plants each year and reset no closer than one foot apart.

## Gaillardia

Some really marvelous new forms of the Gaillardia or blanket flower have been hybridized. Among the newer Gaillardias are the Grandiflora Copper and the Portola hybrids. These last are taller than the common varieties, often reaching three feet. The flowers are sometimes three and one-half inches across. Gaillardias bloom from early summer to well into November, and along with the chrysanthemums, provide the last bouquets of the year. They require a sunny position in rich but well-drained soil. They often will not survive the winter if the soil is heavy or clay-like.

As the season advances the number of daisies increases. We have the tall Boltonias, pink or white, that bloom so profusely that they appear like giant bouquets; a little weedy but invaluable. Then too, Rudbeckias provide material for the late summer. The vogue of golden glow (*R. laciniata*) is past but *R. speciosa* is highly desirable and showy during July and August.

We could enumerate almost without end the many valuable members of this vast family. Our ancestors called them "day's eyes." Surely they are the eyes of the day and no garden need be without gleaming color at any season if we will but give daisies the consideration they truly deserve.

THE old variety Wealthy long had a reputation for setting its fruits in clusters. Such clusters in any variety generally result in apples that are small in size and poor in color. Effective control of insect pests is more difficult when clustering is common. If one apple in a cluster drops there is a tendency for some or all of the others to drop. There also is a difficulty at picking time in that the entire cluster tends to separate from the spur when one apple is picked, thus making it necessary to pick all at once. Because of the undesirable features of the clustering habit, thinning has been practiced in many orchards and localities in which the Wealthy is grown.

## New Varieties Studied

As the new varieties Haralson and Minjon have shown a tendency to cluster, thus suggesting that thinning might be desirable, a study was made of the extent of clustering in these varieties. Wealthy was included for the purpose of comparison. Most of the observations were made in seasons when the set was heavy, but light sets were included in order to note differences in behavior. Several trees of each variety and age were included so that the final figures would be fairly representative of variety habit. For the same reason, a large number of spurs were examined. In the course of the study the behavior of 8,808 spurs of Wealthy, 27,823 spurs of Haralson, 9,975 spurs of Minjon, a total of 46,606 spurs were examined. A summary of the results of these observations is shown in the accompanying table.

The table shows that a little more than half of all the Haralson spurs (55.8 per cent) set single apples. Clusters of two (30.1 per cent) and three (10.5 per cent) were common. Clusters of four or five apples, although not occurring so commonly were found on almost every tree. A set of six apples per spur was not common in the Haralson but was observed in years of light crops or on young trees. The figures in the table

show that the Haralson has a slightly greater tendency to cluster than the Wealthy.

## Clustering Serious in Minjon

Clustering in the Minjon, however, appears to be a more serious fault. Only 21.9 per cent of the spurs examined had set single apples. Four out of every five spurs set clusters varying in number from two to seven apples, although only two spurs were found that had set seven apples. When in bloom, clusters of as many as eight blossoms have been found. In this variety the percentages of 24.1, 10.2, 6.8 and 1.3, respectively, for sets of three, four, five, and six apples per cluster make a total of 42.4 per cent, a figure equal to the total clustering in Wealthy, and close to that of Haralson. In addition, in this variety 25.7 per cent of the spurs set two apples, or one spur in every four. These figures support the statement by growers to the effect that the Minjon must be thinned in order to obtain the best grade of fruit.

In the course of this study it has been evident that in years when the set has been heavy, or on individual trees bearing a heavy crop, there has been a tendency for all three varieties to set a higher percentage of single apples and fewer clusters. In seasons of light set this tendency was reversed. However, in both Wealthy and Haralson there was less clustering in older than in younger trees regardless of season or crop. But the tendency for Haralson to set clusters on young trees or with light crops seems more pronounced than in Wealthy. In all three varieties more clusters were found towards the tops than in the lower portions of the trees.

## Spurs Crowded

In both Wealthy and Haralson the benefit derived from setting only one apple per spur, 57.4 and 55.8 per cent respectively, was largely lost because the spurs often were crowded so close together on young branches that the apples were in close contact and

THE CLUSTERING HABIT IN WEALTHY, HARALSON AND MINJON APPLES

Variety	Years recorded	Total spurs	Apples Per Spur						Total clustering per cent
			In per cent of total set						
			1	2	3	4	5	6	
Wealthy	2	8,808	57.4	29.3	9.9	2.7	0.6	0	42.5
Haralson	3	27,823	55.8	30.1	10.5	3.0	0.6	0	44.2
Minjon	2	9,975	21.9	25.7	24.1	10.2	6.8	1.3	78.1

hung in "ropes". This tendency to "rope" shows why thinning to one apple per spur has not been very beneficial in Haralson. In Minjon "ropes" were not so common but clustering on the long slender spurs was much more pronounced, as may be seen in the table.

Figure 1 shows typical large clusters of apples in the Minjon variety, although a set of seven was observed only twice. The "rope" of Haralsons in Figure 2 shows single apples in contact as well as some clusters. "Ropes" frequently are much more crowded than the one shown.

### Thinning Suggested

This study indicates that clustering is a marked characteristic of Haralson as it is in Wealthy, and that it is even more pronounced in Minjon. In all three varieties a high proportion of clusters can be expected to develop from the spurs under normal conditions. In Haralson even if little clustering occurs an objectionably heavy crop may result because of the great number of spurs on the branches. These results suggest that a grower who wishes to sell in the "quality" market or who has difficulty in the control of insects may well consider the possibility of thinning as a regular management practice for Haralson and Minjon.

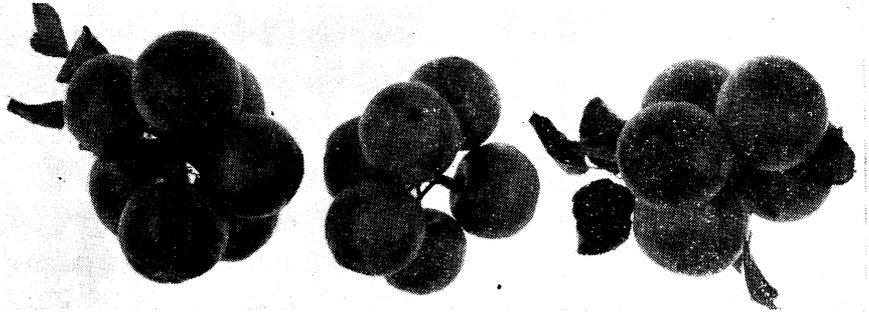


Fig. 1.—Typical large clusters of Minjon apples a month before harvest.

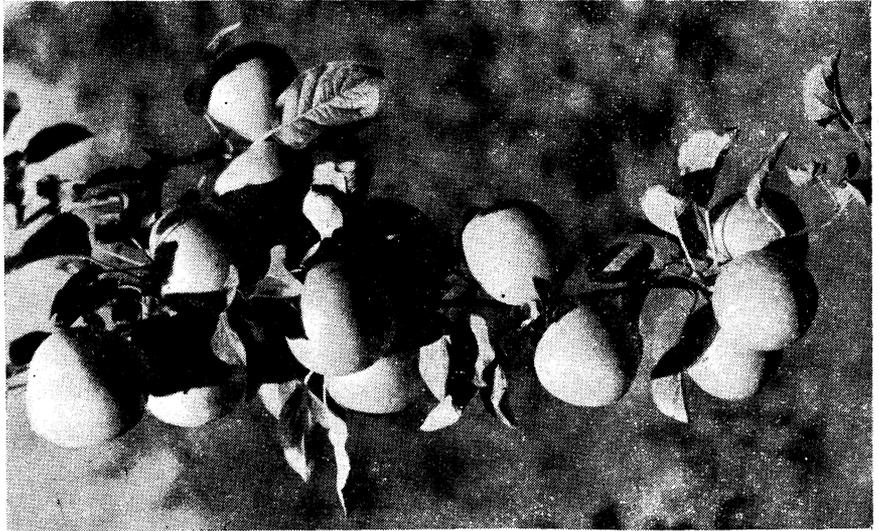


Fig. 2.—A "Rope" of Haralson apples in July before the apples were touching.

## Minnesota Garden Flower Society

ALICE M. TISDALE, Editor

THE arrangement and proper use of flowers is an art in which may be found as much enjoyment and satisfaction as in gardening itself. On June 14 the Minnesota Garden Flower Society will hold a flower show at Schuneman's, St. Paul. Perhaps the following discussion will suggest methods useful to exhibitors or will lead to a better appreciation on the part of onlookers of the thought and effort which go into the making of an exhibition arrangement.

When the average person looks at a lovely flower arrangement, admiring its color, line and general beauty, he does not think of the mechanics which may have been employed to achieve that arrangement. But one who works a good deal with flowers knows that there are many valuable "tricks of the trade" and various small accessories that help much to smooth the difficulties of the flower arranger.

The first and indispensable accessories are some really good scissors, sharpened clippers and a good sharp knife. Next come suitable vases and containers—a variety of them of different shapes, sizes and colors to hold various kinds of flowers. Then, holders, big and little. I like best the needle type of holder if it is not too shallow, but the wire ones are often

best for large or woody stems. Often a bouquet in a shallow dish is top-heavy and topples over, because the holder is not heavy enough. To remedy this, some people use a layer of modeling clay pressed between the holder and dish. However, the dish, clay, and holder must be absolutely dry or the clay will not stick and the

holder will continue to topple. Personally, I prefer to use paraffine instead of clay. Accumulated candle-ends or canning paraffine may be melted and poured into the perfectly dry container. The holder then may be pressed well into the melted wax. Use plenty of the paraffine, enough to make sure the holder will be held firmly in place when the wax is cold, no matter how heavy the bouquet. If you have several holders, you may leave a holder permanently imbedded in wax in each container ready for use when needed.

### Unusual Accessories

Frances Coffin Gaskill in *The Home Garden*, has listed some other accessories she has found useful which are original, to say the least. For tying thin-stemmed flowers into small bunches for firm placement, she uses seven-inch strips of raffia. She also ties raffia around tulip stems or any other stems which have a tendency to split or curl away from the holder. The tying is done at the base of the stem where the raffia is wrapped around firmly several times, then