



## A SHORT COURSE IN PEONY CULTURE

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Note: This article was written in 1923, but the information contained within remains valuable to anyone growing peonies today.

I have been requested by Mr. Saunders to prepare a bulletin for beginners. This, to my mind, covers a wide field, for if progressive even the professional grower of several years' experience often finds he is lacking information that should be known by the amateur. This article, however, is written chiefly for the amateur, the one who cultivates the peony purely from love or attachment and without reference to gain or emolument.

In this class may be found the following—those who have planted the peony because of its hardiness and ease of culture and are satisfied with a few plants. Secondly—fanciers who have admired the peony from childhood and who with maturing years have watched its progress and development and have made considerable progress in accumulating a collection of worthwhile varieties, and lastly, the peony enthusiast or hobbyist, who is content with nothing but the best and who is ever on the lookout for new acquisitions of merit and in whose gardens may be found the aristocrats of the peony kingdom.

To the first class I would ask that you make the acquaintance of the second group and with them seek to know the peony enthusiasts, for it is in their company you will experience the greatest delight. The hobby of the enthusiast is not a handicap, for hobbies, if we know their limitations, are the sparks that ignite the oil of endeavor. They sharpen the perception, quicken the pulse and renew the mind.

It is indeed surprising the number of men of big affairs and accomplishments who have made the raising of peonies a hobby. Business cares and anxieties are forgotten or cast aside, tensed nerves are relaxed, and after a strenuous workout in the garden they can enjoy a refreshing sleep and are better prepared for a vigorous day on the morrow.

We, as amateurs, have many advantages over the professional grower, chief among which is our ability to give more individual attention to our plants, and further, our plants can remain undisturbed for any period of time we may see fit, where the commercial grower, to be successful, must transplant and divide frequently. Furthermore, the amateur can let the professional grower experiment with new varieties of unknown quality and profit thereby without any financial obligation. At the peony exhibitions it has been my pleasure to attend, a large number of most desirable prizes have been awarded to amateurs.

Some of the finest peony gardens I have ever seen were owned by amateurs and while this bulletin is written chiefly for the beginner or amateur, I trust there may be some things that the professional grower may find of interest. If progressive and well-informed, the professional grower feels that he has but slightly advanced the beginners' class, as there is always something new to learn and new varieties to acquire.

**LOCATION AND SOIL**-This is naturally the first question that arises when we are contemplating any planting and it is quite essential to know a few important facts concerning the peony to get the best results. Drainage is very necessary as peonies will resent wet, soggy soil. Good drainage is imperative. Select a position where they will have full access to the sun a greater portion of the day. They should not be planted near trees or large growing shrubbery that will impoverish the soil, thus robbing the plant of essential plant food. It is safe to figure that the roots extend from a tree or shrub, a distance equal to the height. If necessary to plant nearer than this, some provision should be made for extra fertilization. The writer was called upon not long since to advise why certain plants of vigorous growth failed to bloom and if they did bloom, why only meager results were obtained. The variety in question was Festiva Maxima, one of the most dependable of all peonies for satisfactory blooming qualities under adverse conditions. Plantings in question were made close to a south wall of a basement that was heated to a temperature of 75 to 80 degrees. The heat from this basement induced early growth before other plants showed signs of life and heavy frosts or freezing completed the work of damage complained of.

I have recently received images of the variety Madam Forel grown at Mine Centre, Ontario, a town located 40 miles west of Fort Francis, Ontario, where the temperature reaches 40 to 48 degrees below zero. They show splendid growth and are literally covered with magnificent bloom. There is no perennial flower to my knowledge, unless it be the iris, that will withstand the rigors of extreme cold and produce such wonderful bloom and still thrive and give satisfactory results in warmer latitudes. There is not a state in the union where peonies cannot be grown, but they unquestionably do better where they have a long rest with cold temperatures. Canada is now realizing the possibilities of the peony and they are being planted there in large numbers.

**TIME TO PLANT**-The month of September is perhaps the ideal month in which to plant peonies. The earlier in the fall they can be set the better, as this will give them a chance to become established before winter weather prevents further growth. However, peonies may be planted later in the fall up to heavy freezing weather or even in the spring and give very good results. Late planted peonies should be lightly mulched the first season. Spring planted peonies are best from divisions made the previous fall. If necessary to resort to spring planting, complete the work as soon as the frost is out of the ground or before the divisions have started any appreciable growth. The writer staged a vase of the variety Mons. Dupont at the June show of the Northwestern Peony & Iris Society that had been cut from plants planted the same spring and carried off first prize for the best six whites in competition with several other good whites. This, perhaps was rather unusual but simply shows the possibilities of spring planting where it is impossible to plant them in the fall. In this case, the divisions were made the previous fall and "heeled in," a sudden drop in temperature which resulted in real winter having stopped our fall planting activities. After growth has started in the spring it is not good policy to disturb the plants and divide them. This should be avoided. Plants taken up in the spring with sufficient earth adhering to them can be moved to another location without any appreciable damage. It is not our desire to recommend spring planting if it can be accomplished in the fall, but experience and observations covering a period of several years have taught us that spring planting can be done if properly handled, and most satisfactory results obtained.

**HOW TO PLANT**-All peony catalogues contain instructions as to method of planting, but some of these instructions are rather brief. Planting of peonies is an important operation and there is no ONE way to accomplish the work. Before planting operations are commenced the soil in which they are to be placed should have been thoroughly prepared some time in advance. If the ground is well enriched several months before planting time, so much the better. Dig the hole sufficiently large to permit the root to be placed in position without crowding. This is so often overlooked by beginners, and by crowding the roots they are apt to be broken from the crown or otherwise damaged so the best results will not be obtained. The next important step is to see that the crown is not placed too deep (two inches being sufficient), and that the dirt is thoroughly firmed about the roots. Some advocate using a hose or otherwise washing the soil about the roots and avoiding the packing of earth. If your ground has been thoroughly prepared and not too large quantities of dirt placed over the roots at first, pressure of the foot will force the mellow soil firmly about the roots and will also prevent any appreciable settling. Common sense must be used not to tramp on the crown of the plants as this would surely result in injury. In ordinary soil there is sufficient moisture to firm the roots without heavy applications of water which may result in baking if followed by hot weather, especially in heavy soil. If the soil is dry, water freely after the roots have been planted. Later in this article I have explained a method of rapid planting where a large quantity of roots are to be taken care of. In large nurseries they are often plowed in, a still more rapid manner of planting but as this will not be of particular interest to the amateur, raising a limited number, I will not describe it at this time. Many advocate digging a trench at least two feet in depth, placing in a quantity of manure, another layer of earth followed by another layer of manure, continuing the operation until the trench is filled to the depth of actual planting, being careful to see that the last layer applied is earth to at least 6 inches in depth. The root is then placed in position and the balance of the trench filled with earth. By the time the plant has thrown roots down deep enough to reach the manure it will have been thoroughly incorporated with the soil and fine bloom will be produced in this manner. However, to my mind this is too laborious a task (and I am not adverse to hard work) for the results obtained. I am fully convinced that as good blooms can be secured from the commonly employed method of planting, if watered freely before blooming time and given liberal surface applications of liquid manure, wood ashes, bone meal or other fertilizing elements. The deeper the earth is disturbed the greater it will settle and where trenching is resorted to, care must be exercised to see that the buds are not placed too deep below the surface of the ground, as it may be necessary to apply more earth in the trench after it has thoroughly settled to prevent an accumulation of water which would bring disastrous results to your plants.

**FERTILIZATION**-The fact that many cultural directions emphasize strongly that the peony is a gross feeder and must be supplied with an abundance of well-rotted manure has led many an amateur, as well as professional, to greatly overdo the fertilization of their soil. I think it would be a safe assertion to make, that one out of ten who have grown peonies to any extent have found to their sorrow that they have over-fertilized their plants at some time in their career. It would be better for the plants to have too little nourishment in the way of enriching the soil than an overabundance of manure or other fertilizing elements. Too much manure will result in diseased plants as their constitutions will resent it. It is one of the serious temptations that beset the amateur in his zeal to attain perfection in bloom, and a

word of caution, if adhered to on this subject, may save the inexperienced grower considerable disappointment.

Bone meal is safe to use, and well-decayed manure, not applied too generously and worked in between the rows or around the plants, exercising caution not to let it come in direct contact with the roots or over the crown of the plant will be found very beneficial. Wood ashes are also very desirable.

**DEEP PLANTING**-The important thing in planting is not to plant too deep. If the buds are placed two or three inches below the surface of the ground it will be found they are planted to a sufficient depth. Some advocate planting an inch below the surface, but after the ground has settled you will find that the buds may actually be only a half inch or less below the surface. There is danger of plants being disturbed by heaving in heavy soil during a period of alternate thawing and freezing and injury or loss of plants results. This is why a light mulch the first year is advocated. After a plant has become established, the danger of heaving is greatly lessened. On light soil there is not so much danger of heaving. See that the ground is thoroughly firmed about the roots when planted. This can be done by a light pressure of the foot after fine earth has been placed over and around the root to prevent injury.

**VARIATION IN COLOR**-Plants grown on heavy soil will have deeper or more marked coloring than the same variety grown on light soil. Climatic conditions are also a factor to be reckoned with. Variation caused by these conditions is sometimes misleading. A delicate colored variety will rapidly fade in the sun and be deprived of its natural color entirely. This can be avoided by cutting the bloom as it is about to unfold, taking it in the house and keeping in a cool, dark place, until fully developed. During the blooming period if it happens to be cool and cloudy, you will have much better flowers although their development will be somewhat retarded.

**HANDLING ROOTS**-When roots are received from your nurseryman, if they have been delayed in transit and appear shriveled, or dried, they can be greatly benefited by being immersed in water for six or eight hours. This will revive them and much better results will be obtained than by planting the dried roots.

Some amateurs object to receiving roots that have been trimmed or cut back, in other words they want the entire length of root. A division with a root six inches long is ample. A division of this kind will throw out from the crown numerous little rootlets that will soon develop into substantial roots, giving added vitality to the plant that will mature into a splendid blooming specimen. There is no advantage in the long root, as it simply lies practically dormant in the ground without the marked development of new root growth that is so desirable and which results from trimmed roots. Proper pruning of roots before planting has the equivalent result of trimming your fruit trees. Much less labor can be expended in planting the shorter roots, which is an added advantage.

All peony plantings should be charted in such a manner that if a stake or label is removed it will be an easy and accurate matter to replace the same. An accurate diagram of your planting will be found useful many times and will amply repay you for the time and trouble expended in securing the same. It is well to have the chart or diagram made in duplicate, thus providing a safeguard in case one is lost or inadvertently destroyed.



**WATERING PEONIES-** Where watering systems have been installed or city water is available, see that it is used generously, especially during May and early June, as your peonies are forming buds. This will be found a tremendous aid in producing fine show flowers. As a usual thing nature is rather lavish in her offering of rain during that period, and it may not be necessary to employ artificial means of water application. Another very important time for watering is during the period the next season's buds are being formed, shortly after blooming time. This feature is often lost sight of, and if a very dry summer prevails and no water is applied, smaller buds will develop with a corresponding weakness of stem the following season, although fall rains, if experienced, will counteract this to some extent. A personal acquaintance of mine who is able to grow the most glorious peonies I have ever had the privilege of examining, tells me he uses no manure of any kind but simply waters copiously. He certainly gets very gratifying results worthy of emulation. With surface fertilization, water readily transmits the fertilizing properties to the roots where they are readily absorbed.

**SIZE OF DIVISIONS-**This has been a much discussed question during the past few years and a definite solution has not yet been reached, each side producing very convincing arguments to champion their cause. I think it is quite generally acknowledged that the small, one eye divisions will require more careful handling to insure success than the larger, commonly known standard divisions of from three to five eyes. The small divisions will produce beautiful plants if left undisturbed for two or three years as they will have developed an entire new root growth, but they must be given careful cultural care the first season to insure good results.

Large divisions are recommended for planting in the south. This is due to prevailing hot weather that has a tendency to reduce the vitality of the plant by absorbing the moisture content of the root.

Considerable loss has been noted where late fall planting has been done during a very dry season which was followed by a winter with scanty snowfall. If the ground is thoroughly dry it will absorb the moisture from the root, leaving it in a withered and devitalized condition that easily succumbs to a protracted period of drought. If such a condition prevails at planting time, water should be applied generously to each root planted, this process to be repeated at fortnightly intervals or oftener if deemed necessary or occasion demands.

**REMOVING TOPS-**I would urge the removal of tops late in the fall after the plant has attained its growth for the season. This obviates the possibility of spreading disease if plants are affected. Several forms of disease can be entirely eliminated by this procedure. The stems or tops removed should be burned. After the ground is thoroughly frozen, a well-sharpened hoe is the best instrument for cutting off the tops. If the ground is not frozen and one has but a few plants, a good, sharp knife will be found very satisfactory. Cut as near the surface of the ground as possible. If a hoe is used it must be kept well-sharpened and it is much more preferable to wait until the ground is frozen as there is less danger of disturbing the buds which are near the surface.

**PLANTING IN QUANTITY-**Where one has a large number of peonies to plant he is naturally interested in getting the work done as quickly as possible and as thoroughly as though slower and more tedious methods were employed. The method I am about to explain will no doubt be very familiar to

commercial growers who grow in large quantities, but it can be adopted by amateurs with equally gratifying results. It is not necessary to set roots in a vertical position to insure success, although this is the most natural thing to do. Roots can be planted at a 45 degree angle as described below and prove equally desirable.

The ground should be thoroughly plowed or spaded to a depth of 8 or 10 inches and sufficiently cultivated until the soil is mellow and perfectly friable. A five-tine spading fork is the best instrument to employ for the purpose. The fork is thrust vertically into the earth the depth of the tines. This can be done without pressure of the foot if the soil has been thoroughly worked. Pull the handle of the fork slightly backwards, throwing the dirt forward. After a few holes are dug it will surprise you how near the proper angle you can get. The second operation is to reverse the spading fork, setting it vertically, as in the first instance, and with the same movement as employed in the first case, you will find that the hole has been neatly cleaned and ready for the placing of plant which should be laid with the eyes or buds a distance of two inches, or possibly  $2\frac{1}{2}$ , from the surface of the ground. By a quick twist of the fork from either side of the opening, sufficient dirt will be thrown over the root to slightly cover it. The foot is then placed over the root below the crown so that the instep will come directly over the root, being careful not to damage the buds, and sufficient pressure brought to bear to thoroughly firm the root. The next step is to fill the hole and complete planting. This is accomplished when the next hole is dug, throwing the dirt from the second hole into the first, as described above. Of course we assume that you have previously marked out the ground as you wish it. In planting in this manner you work with your back to the mark so that your work is always before you. The depth of the hole to be dug depends upon the length of the root planted. Be sure the bottom end of the root is placed as low as possible at this angle so that it will rest in moist earth. With a little experience you will find planting can be accomplished quite rapidly in this manner and at the same time not plant too deep. The writer planted 219 divisions in 45 minutes, and has nearly kept up this average in a day's planting. This included the dropping or distribution of the roots before planting operations were commenced. With the exception of plowing in, this is as rapid a method of planting as I know of.

**DISEASE**-The peony, while practically free from disease, is not immune, and to be insured of plants free from disease, it is well to be conversant with a few of the indications that are prevalent in diseased plants. It is my intention to touch but lightly on this subject as the Nurseryman is the fellow who must be on his guard and know how to combat these various maladies and should have his stock healthy before disseminating it. The amateur may receive perfectly healthy plants and they may become diseased. Too much fertilization is one of the prevailing and primary causes of disease.

Leaf blotch is quite prevalent in large peony plantings. It is not a serious ailment and does not materially affect the plant. This is more prevalent late in the season as the plants are about to mature. It is a fungus disease and can best be eradicated by cutting and burning the tops before the leaves have dried up and fallen late in the season.

Botrytis blight is one of the most common diseases easily discovered in a peony planting. It affects the stems, buds and leaves. Stems diseased by this blight are discernible in the early spring after they have attained a height of a few inches, even before the leaves have expanded. These young shoots may

appear perfectly healthy upon first inspection but a few days later will be found wilted and lying on the ground. Sometimes the stalks will attain maturity and be about ready to throw a blossom when they are stricken down. A second stage of the disease is shown in the buds, which will turn black and wither. If the stalk is examined it will be found dead several inches below the bud. In very wet seasons this disease is more prevalent and often exceedingly destructive. The leaves are usually the last to show symptoms of the disease by becoming brown and dry due to the tissues being killed. Plants affected must be carefully watched and as soon as a stem shows wilt, dig down an inch or two below the surface of the ground, being cautious to carefully remove the earth directly about the plant, and place it in some container that it may later be removed to the ash can or otherwise destroyed. You will note after the earth is removed that directly below the surface of the ground the stem of the plant will invariably be rotted off or consist of a decayed mass. With a sharp knife remove the stem below the decayed portion, which will be found to extend but a short distance below the surface. In handling this diseased portion, exercise caution to see that you do not touch the balance of the unaffected plant, as the disease is readily transmittable. Burn the diseased portion of the plants. This is also a fungus disease and very similar to Sclerotinia Stem Rot. If the plants are badly affected they should be dug up, all tops removed carefully as low as possible without disturbing the bud, and removed to another location. Of course this planting should be deferred to the proper season. This disease, while one of the most destructive, does not affect the root of the plant and can be entirely eradicated if the above measures are resorted to.

There is no plant that has fewer ailments than the peony that is so entirely satisfying as a flower and general all-round perennial. Reliable growers will not knowingly disseminate diseased plants upon the unsuspecting and uninformed public. Those guilty of such procedure are not worthy of patronage, as the popularity the peony has already attained will suffer in consequence.

**MULCHING-** Have already referred to the mulching of plants the first season after planting. Mulching heavily to retard spring growth and extend the season of bloom is another feature well worth consideration where one has a number of plants. After the ground is deeply frozen, a mulch several inches deep should be applied to the plants that are to be held back. Mulch can be left on in the spring until after growth begins, in fact, can remain until after flowering if desired. When the plants start growth in the spring they can be assisted through the mulch with but little trouble. The earlier this is done after growth starts the better, as the stems will be more firm. Mulching interferes with cultivation but is a splendid medium for the conservation of moisture. Repeated heavy mulching has a tendency to lessen vitality. Millet cut before maturity, ensilage corn, marsh hay or any coarse material free from weed seeds will make a good mulch.

**SELECTION OF VARIETIES-** Visiting nurseries where peonies are grown, trial grounds and exhibitions where peonies are displayed, is the very best way to become acquainted with the most desirable varieties. This in connection with a careful study should enable you to make a selection that will be satisfying and in every way fulfill your expectations.

In making your selections bear in mind that a flower of delicate texture and coloring is easily affected by exposure to the sun. Sensitive colors will readily fade and even colors more pronounced are diminished in intensity. Selection generally resolves itself into one of personal taste. Some prefer the singles, others

the Japanese types or the loosely built flowers: still others are only satisfied with the fully developed double blooms. As the double blooms usually have more substance they are more often chosen than any other type. Varieties producing large blooms are usually selected, although the smaller blooming varieties should not be overlooked. Quality should be given first consideration. This refers both to the flower and the productivity of the plant. Free blooming varieties are the most desirable. A well balanced selection will compose early midseason, and late blooming varieties in the various shades and colors. If to be planted in a border, dwarf, medium and tall growing species should be selected according to requirements. Period of bloom may be extended several weeks by securing a well-balanced collection of the earliest blooming sorts, continuing through the midseason and comprising the very latest blooming varieties. Where tree peonies can be grown with success, they will add greatly to any collection.

**DIVIDING-** If for any reason it becomes necessary to divide your plants due to crowding, wishing to make an exchange, contribution to some friend's garden, do not attempt to divide without first digging up the entire plant. If you do, you will not do a satisfactory job and will likely do a great deal of damage to the remaining portion of plant. As soon as the plant is dug the tops can be removed. Dividing should be done in the early fall months as the plants at that period have formed their buds for the following year. If the plants are brittle, let them stand for two or three hours and they will admit of handling without as much breakage resulting. If the plants are old, division is much more difficult. Any earth that adheres to the plant should be removed before attempting to divide. Examine the clump carefully to determine where the weak places exist. These are the places where you should make your initial effort to divide the plant. Use a heavy knife that will admit of considerable prying as you will find necessary in making divisions. Make good, strong divisions. By this I mean divisions consisting of at least three to five eyes. Sometimes it will be found necessary to cut through the fleshy portion of the plant in order to make your divisions. Do not hesitate to do this. After you have your first division, the remaining ones are usually more easy to make. Dividing plants properly is an artistic accomplishment and takes considerable practice. This is especially true with very rare varieties where one cannot afford to lose a single division. The main object is to see that each division is supplied with three or more eyes with sufficient root to balance. In dividing I use three knives. One with a heavy, stiff, long blade to pry the roots apart when necessary, one with a shorter blade of rather heavy material, and a still shorter knife with a flexible or pliable blade that is used in the final work of completing and trimming the divisions. Of the three, the one with the flexible blade is the most used.

**FAILURE TO BLOOM-**Some of the outstanding reasons for failure of peonies to bloom may be summed up as follows:

- 1) Too deep planting.
- 2) Over-fertilization causing diseased roots. Sour or acid soil.
- 3) Insufficient moisture.
- 4) Lack of fertility.
- 5) Damaging eyes in early Spring with rake or fork.
- 6) Unseasonable frosts or freezing in late Spring.
- 7) Numerous eyes without sufficient root support.



Too deep planting will cause the plant to form buds nearer the surface in an effort to right the wrong. These buds will be formed along the stem at intervals and result in a large number of weak stems with insufficient strength to hold or develop bloom. If a choice variety it can be dug up and cut back to one bud on each main stem and replanted in a new location, or the earth replaced with fresh fertile soil, being careful to plant so the buds will not be deeper than 2 or 2 ½ inches below the surface of the ground. By careful cultivation a plant may be revived and in time regain its former vigor. With an inexpensive plant I would recommend discarding it.

I have spoken of over-fertilization earlier in this article. Heavy and continued applications of manure or other fertilizers will cause your plants to become, dyspeptic in resenting the rich diet, and the roots are likely to rot. Especially is this true when manure has been placed directly over the plants. The alternate thawing and freezing during the spring months will allow the liquid fertilizer to enter the crown of the root through the hollow stems of the plant and come in direct contact with the root. Damage will surely follow in such cases.

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