

RURAL AND SUBURBAN

HOW TO GROW PANSIES

The Pansy! At the sound of that name, no matter where I hear it, my mind goes back to the scenes of youth and the humble home of my childhood days, and lingering there stops beside the first bed of pansies of which I have any recollection.

My childish fancy was captivated. I see it now just outside the kitchen door so situated as to be sheltered from the fierceness of the noon-day sun, by the spreading of branches of a cherry tree.

Long and earnestly have I gazed upon those lovely flowers—the only flowers I have ever called lovely—at their faces in all the sweetness of innocent loveliness were turned toward the rising sun and followed him with their gaze as he moved majestically across the azure vault of heaven.

My childish mind would wander from the pansy to the great cause beyond, and I would exclaim, "None but a God can make such loveliness."

That was long, long years ago, and although today I am better able to understand something about the law of cause and effect and better able to understand something about how the different strains of flowers are produced, I am yet ignorant of the great cause beyond, and the judgment of my more mature years only serves to confirm the impressions of my childish mind that "none but a God can create such loveliness."

Such must have been the sentiments inspired into our ancestors by this flower as they gazed upon it in all its pristine beauty if we are to judge by the endearing names by which it was called. The Italian name signified Idle Thoughts; the German, Little Step-mother. Many of the old names were full of affectionate meaning, Kiss-me, Pull-me, Pick-of-my-joan, Three-faces-under-a-hood, Kiss-me-at-the-garden-gate, Lady's-delight, None-so-pretty, and Kit-run-about. Most of the early poets called it Heartsease, while Shakespeare spoke of it as Love-in-Idleness. The French called it Pensee from which it derived the modern word pansy. But whatever the name, the pansy has ranked as one of the most beloved of all the flowers in the whole floral kingdom.

Parent is Tri-Color

The parent of the pansy is the Viola tricolor, which is found peeping through the meadows and fringing woodland walks and hedgerows in England and Europe, wherever man is found. A traveller, speaking of the forests of Sweden says: "Innumerable flowers of the loveliest colors peeped out between the masses of brown rock enamelled with various kinds of lichens, and huge fragments were variegated with beds of the pansy, or Heartsease, displaying its different hues, relieved by the darkness of the sweeping pines."

To obtain the best results in the culture of this flower seed of the Giant flowered varieties such as Giant Excelsior, Cassier's Giant, Burpee's Defiance and Bugnot should be planted in August, while the smaller flowered sorts are better started early in the spring. The reason for this will be quite obvious when it is understood that the large flowering strains are not satisfactory summer bloomers.

They are not at any time such profuse bloomers as the smaller flowered bedding sorts and are grown for the immense size of the bloom which can be had only in the cool, moist weather of early spring or fall. Many persons have tried these as summer bloomers and been disappointed because the size fell far short of that claimed for them, while the quantity of bloom was not equal to the ordinary bedding kinds.

Sow Early in Spring

The smaller flowered strains will give satisfactory results when sown early in the spring, and may be had in bloom all summer. If you have a cold frame this is much the better place in which to start the seed, or they may be started in a box set in the porch on the veranda.

We will not give any directions for starting pansy seed in the house because we do not believe that ten per cent. of those who try starting this seed there would obtain satisfactory results.

The pansy must have a cool, moist atmosphere and plenty of fresh air, and must not be allowed to lag at any stage of its growth. If you have a cold frame plant the seed there as early in the spring as the frame can be brought into use. If you have no cold frame select a cool, moist place in the garden that is partially shaded during the hottest part of the day. By partially shaded—the writer hopes that those who understand the meaning of that term will pardon him if he should digress in order to make himself clear to those whose idea of it is somewhat hazy. So many people have become disheartened and discouraged through failure with this flower because they stumbled and fell over that term "partial shade," that it is worth while taking the time to set them right.

Not Dense Shade

Partial shade does not mean dense shade—a place which never gets a glimpse of the sun or where the gentle breezes never circulate. It means a place to which fresh air has access and yet is sheltered from the burning rays of the sun during the hottest part of the day.

Give them all the sun possible before 11 a. m. and after 4 p. m. If it is not possible to select such a partially shaded situation for the seed bed, make it right out in the open, and after the seeds have been planted drive five stakes in the ground, one at each corner and one in the centre of the bed.

Allow them to project out of the ground about six or eight inches. Over these stretch a strip of cotton fastening to the stakes with tacks or clothespins. The latter are preferable as it is more convenient to remove the cotton in the evening and on dull days, or when water is required, than when tacks are used.

Having selected the place for the seed bed dig the ground to a depth of about eight inches making it quite fine all the way through. If the soil is not rich dig in a two inch layer of old rotten manure. Sow the seed thinly in rows covering to a depth of one-eighth of an inch. Be sure and do not cover too deep. When the young plants are up keep the surface soil loose and fine between the rows.

Remember the caution to shade during the hottest part of the day and never allow them to suffer for water. The young plants will be ready to transplant to their permanent bed when they have made several leaves or about the time the first buds appear.

For the permanent bed select, as for the seed bed, a partially shaded location if possible, but select a place out in the open sun in preference to too much shade. Dig it as deep as can be done with the spade or digging fork breaking it up real fine, not merely on the surface, but all the way through.

This depth is not necessary for the roots to penetrate, but loose ground will hold moisture longer than ground that has been hardening throughout the ages. Having dug the bed spread over it a good coat of well rotted manure from the cow stable or pig pen; say one wheelbarrow load to the square yard for light soil and half that amount for heavy loam if it is already fairly rich.

Never use manure from the horse stable unless it is two or three years old, or unless it is dug in the fall previous. Manure of this kind, together with street sweeping which are more easily obtained in the larger town and cities contain a large percentage of ammonia and are heating character; hence the reason for digging in during the fall when the ground contains sufficient moisture to counteract their burning action on the soil.

Mix the manure thoroughly through the soil—mix until it all looks like earth. This heavy dressing will not only supply rich food for the plants but will assist in retaining moisture in the soil as well as keeping it loose and porous.

When the bed is prepared and the plants are sufficiently advanced for transplanting set them out leaving from eight to ten inches between each plant.

Keep the surface soil loose and fine by frequent watering. If the bed is exposed during the heat of the day mulch the ground with grass clippings, straw, or anything that will conserve the moisture by excluding the sun from the roots during the hottest part of the day.

The effect of the mulch is the same as that of partial shade. The object of shade is not to protect the plants, but to protect the roots from the intense fierceness of the burning rays of the sun during the extremely hot weather.

The pansy, unlike the sweet pea, dahlia, and other tall growing plants which cool soil, does not root deeply. Herein is to be found the reason for protecting them from the sun during the hot weather. While the pansy likes the sunshine, and plenty of it, and while sunshine is absolutely necessary to the proper development of the bloom and the deepening and toning of the colors, the roots must be protected or they will burn up and die.

When the season advances and the plants give evidence of exhaustion by producing smaller and fewer flowers, an examination will reveal fresh branches starting out from the centre of the plant. The old branches, which have been blooming all season should be cut back, and the new growth allowed to shoot out. This cutting back should be done early enough in the fall to allow the plants to get a good start before the severe weather, and if given a good covering of straw leaves, or other coarse litter will produce bloom well into the second season.

THE JAPANESE LILAC

By Prof. H. L. Hutt, O.A.C., Guelph

One of the most popular and generally grown shrubs in cultivation is the lilac. This is not a native of this country, but has been introduced from Europe and Asia. There are now nearly a dozen distinct species which have been brought to this country, and scores of varieties have been developed. In the last report of the horticulturist of the Central Experimental Farm, Ottawa, reference is made to a collection of 177 varieties in the arboretum at that place, and a list is given of twenty-five of the best, including single and double varieties, ranging in color from pure white, through pinks and reds, to lilac and purple.

The Japanese lilac (*Syringa Japonica*) belongs to a species not so well known as most other varieties, yet it is well worthy of a place in any collection. It is said to be the only one of the lilacs which may be said to form a real tree, as it sometimes attains a height of twenty-five or thirty feet. Although it comes from Japan, it is quite hardy in this country and is not affected by the mildew to which the common varieties are more or less subject. It is of an erect habit of growth and does not branch out as freely as other varieties, hence does not make so good a specimen plant, but is best suited for background in the border, where its more or less naked branches may be hidden with foliage of other shrubs.

The bloom of the Japanese lilac is quite distinct from all others, being of a creamy yellow

low color and produced in large, loose panicles often a foot or more in length and nearly as much in breadth. It is also the latest of all varieties to bloom, being at its best usually about the first of July. With a good selection of varieties to bloom about the 24th of May, usually begin to bloom about the 24th of May, followed by the *S. loykyosa* and *S. japonica*, a succession of bloom may be maintained throughout the whole month of June to the first week in July.

PLANTING RASPBERRIES

By Charles F. Sprott, Burnaby Lake, B.C., in the Canadian Horticulturist

To make the cultivation of the raspberry a profitable occupation, the fruit grower who is intending to grow this fruit for the market should be careful that the land he intends planting on is a deep, rich, moisture retaining soil. Land that will grow good crops of potatoes or corn will grow a profitable crop of raspberries. It is essential, also, that the land be thoroughly underdrained. The land should be plowed in the fall at least eight inches deep and well worked in the spring before planting is done. It should be fine and pliable.

When the land is in this stage it should be marked out—the rows being north and south, if possible, as the crops ripen easier. A good way to mark it out is to stretch a line across the field and with a marker lay off the field with rows six feet apart.

The marker can be made with a two by six-inch scantling having two pieces one by four nailed on at right angles on the flat side of the scantling, the points being six feet apart. Alongside these pieces, nail on two one by four by six feet on the edge of the two by six scantling with a cross piece nailed to them by four by six from the other side of the two by six scantling.

Pull the marker carefully up the line and return down, having the point in the last made line. Great care must be taken to keep these rows perfectly straight. Then plow up these rows, having the land side of the plow on this mark, and plow about five inches deep. When this is done, planting can commence, the plants being placed in the furrow thirty inches apart. The roots should be spread out and a little fine soil pulled into the furrow and pressed firmly around them. When all the planting is done, the remaining earth can be more quickly put into the furrow with a prong hoe, firming it around each plant.

The grower should be very careful to plant only strong, healthy suckers of those varieties which grow successfully in his neighborhood. To a large extent the success of the plantation depends on the quality of the plants that are planted. These should be cut down just above the ground the first season to stop them from fruiting, but just high enough to allow the man cultivating them to see them. The cultivator must be kept going through this patch to keep weeds from growing and so conserve moisture.

It is quite possible to grow some other crop in the centre of the six-foot rows and yet be able to cultivate, and it will help pay for the work of cultivating the raspberries which bring nothing in that year. Potatoes, turnips or carrots will do well on good land, and the raspberries should make good growth.

HOW TO GROW GOOD CELERY

By F. W. Hack, Norwood, Manitoba, in the Canadian Horticulturist

When the time approaches for planting celery in the field, the plants should be gradually hardened by exposure to the weather. Celery plants when properly hardened will be unharmed by a moderate frost, and may be planted out from the middle of May to the beginning of June. The land should be well cultivated and finely pulverized.

If possible, dull or rainy weather should be chosen for planting. The plant bed should be well watered before removing the plants and care must be taken to avoid injuring the roots. Shallow pans are convenient for handling the plants, and in hot, dry weather a little water in the pans will prevent wilting. If the weather is dull and the soil is moist, it will not be necessary to water, but a good watering should be given and as soon as the ground is dry the surface should be stirred to prevent baking. Watering the young plants is apt to pack the soil too tightly around their roots and should not be done unless necessary.

Celery should be planted in rows three to five feet wide and four to six inches apart in the row. The width between the rows is to give room for cultivation and for soil to earth up with; four feet will be found the most convenient.

Some growers plant in double rows. This is not advisable, except in very rich soil and where water can be artificially applied. The old method of growing celery in trenches is not now generally used. The labor of preparing the trenches and the difficulty of cultivation renders this method unprofitable commercially. Where level culture is practiced, the rows should be slightly furrowed, so that the celery when planted should be a few inches below the level of the land. This will start an upright growth.

Frequent shallow cultivation should be given from the time of planting throughout the growing period. The surface should be well stirred twice a week during dry weather and after a rain as soon as the ground is dry. When the roots of the celery begin to spread, cultivation should be shallow near the plants.

When the plants have been out two or three weeks they must be gone over carefully

by hand, the soil around and between them loosened and all weeds removed. The plants must never be allowed to spread over the surface of the ground, and enough soil must be drawn up around them to secure an upright, compact growth. This process should be repeated as growth continues. Do not let any soil fall into the hearts.

When the plants are nearly full grown the earth should be drawn up to half the height of the plant, and one week later nearly to the top of the leaves. The blanching process will take from ten to thirty days, according to variety.

Celery that is intended for storing should be planted a little later and not moulded up so much. It will keep better if not quite fully matured when dug, and if green will blanch in storage.

A WONDERFUL PRODUCER OF HUMAN FOOD

A Holstein cow, owned by the Dairy Department of the University of Missouri, in one year produced more human food in her milk than is contained in the complete carcasses of four steers weighing 1,250 pounds each. This statement, impressive as it seems, is not only true, but does not even do full justice to the cow. The solids in the milk which are completely digested and used by the body are counted against the entire carcass of the steer, which is only in part edible.

The cow that performed this feat of producing the equivalent of four steers is Princess Carlotta. In the year she produced 18,405 pounds of milk. Below is given the amount of proteins, fat, sugar and ash contained in this milk, and the amount of the same substances found by Dr. P. F. Trowbridge, in an analysis made of the carcass of a fat steer weighing 1,250 pounds:

	18,405 lbs. milk.	1,250-lb. steer.
Protein	535 lbs.	172 lbs.
Fat	618 lbs.	333 lbs.
Sugar	920 lbs.	...
Ash	128 lbs.	43 lbs.
Totals	2,218 lbs.	548 lbs.

The total amount of dry matter in the milk was 2,218 pounds, all of which is edible and digestible.

The steer, with a live weight of 1,250 pounds, contained 5 per cent of water in the carcass, leaving a total of 548 pounds of dry matter. In this dry matter of the steer is included hair and hide, bones and tendons, organs of digestion and respiration; in fact, the entire animal, a considerable portion of which is not edible. The analysis of the steer's carcass was made from animals taken after grinding up together one-half of the complete carcass, and is not in any sense an estimation of the composition of the carcass.

Princess Carlotta produced proteins sufficient for more than three steers; nearly fat enough for two; ash enough to build the skeleton for three, and, in addition, produced 920 pounds of milk sugar, worth as much per pound for food as ordinary sugar.

These figures indicate the remarkable efficiency of the cow as a producer of human food. It is because of this economical use of food that the dairy cow, and not the steer, is kept on high-priced lands. When land is cheap and feed abundant, the meat-producing animals predominate, but when the land becomes high in value and feed expensive, the farmer turns to the dairy cow.—C. H. Eckles, Prof. Dairy Husbandry, University of Missouri.

REMOVING STAINS FROM EGGS

It is difficult to remove stains from eggs so effectually that no trace of the objectionable stain may be detected, but a British exchange offers a number of methods which may be employed, it is said, to remove dirt from the shell, without, as far as possible, destroying the "bloom" generally possessed by newly-laid eggs. "We cannot vouch for the efficacy of the treatments suggested, and do not advocate them, except by way of trial." Prof. W. R. Graham, to whom we have submitted the suggestions tells us that he intends to try them. He would consider them worth a trial, especially the first mentioned. "The prescription looks good," he adds, "if it does not favor the eggs." The methods are as follows:

1.—Eggs washed in a solution made from a quarter ounce of ammonia and one pint of water are superior in appearance to ordinary new-laid eggs. White eggs become snow-white, and tinted eggs are brought to an even, spotless, clean shade that makes them most attractive. The use of ammonia is not objectionable, it does not penetrate the shell, nor does it leave any odor.

2.—Wash with water and rub with a piece of flannel. After this, a mixture of one-fourth of a cup of salt to one-fourth cup of vinegar, should be rubbed over the shell briskly. Should the stain be a deep and obstinate one, it may be removed by rubbing with a little dry and coarse salt. Tepid water should be poured over them to wash off the salt, etc., after which they will be equal those in appearance which are taken from the nest in a clean condition.

3.—Wash the eggs till free from stain in luke-warm water, with a small portion of soap added, and dry; let them lie in unskimmed milk for a few minutes, then wipe dry with a soft cloth; a disused silk handkerchief is the best for the purpose. The above method can also be pursued if the eggs are desired for show purposes.

4.—Take a clean, coarse rag, slightly moisten, dip in common salt, rub the stain until it entirely disappears, wash in warm water, and dry on soft cloth.

5.—Wash in tepid water, and then pass through warm water to which a little glycerine

has been added, and leave to dry. Water invariably removes the bloom—except on some brown eggs—but glycerine will replace it.

6.—Steep in buttermilk for 24 hours, afterwards washing and wiping carefully.

7.—Wash them in warm water to which some vinegar has been added—a tablespoonful to a pint of water—then leave to dry. This will not remove the bloom, and should be done as soon after being laid as possible. Should they be required for show purposes, rub with a soft duster.

ALFALFA COMPETITION IN SASKATCHEWAN

Saskatchewan is to have a competition in alfalfa-growing which promises to be one of the biggest contests known to Canadian agriculture. The growing of this leguminous crop is to be encouraged by an offer of cash prizes aggregating \$6,300, as well as trophies and medals.

The movement was inaugurated at the Agricultural Societies' Convention, held at Regina in January last, when it was decided that a prize of \$1,000 would be awarded for the best ten-acre field of alfalfa in Saskatchewan in 1914. Recently, William Mackenzie, president of the Canadian Northern Railway, offered to provide the required \$1,000, and, needless to say, his offer was accepted immediately. But the competition has outgrown the first plan; ten times \$1,000 would hardly be more than sufficient to finance the competition as now planned.

The approved plan provides for the division of the province into four parts. Prizes will be offered for the six best fields of alfalfa in each of the districts. The prizes will be as follows: First, \$500; second, \$400; third, \$300; fourth, \$200; fifth, \$100; sixth, \$75. The first-prize field in each of the four districts will be scored for the championship, which will consist of a magnificent silver trophy.

All contestants must be paid-up members of the nearest agricultural society. Entry must be made before August 1st, 1913, and the crop must have been sown not later than the season of 1912. The entry fee has been fixed at the nominal sum of \$5.00, and must accompany the entry, which is to be sent to the director of extension work, previous to the date specified. The field of alfalfa must consist of not less than ten acres, but if the size of the plot exceeds the minimum, the whole field will be scored. No artificially irrigated crop will be eligible for entry in the competition.

HOW TO SPRAY THOROUGHLY

A good many orchard-owners will spray this year for the first time. Barring, of course, exceptionally disastrous conditions as to weather or markets, the work will be well paid; in many cases it will be repaid two or three times over. But unless one certain condition is observed there will be many disappointments at the imperfect results achieved. That certain condition is thoroughness. If you want to fence chickens out of a garden, you don't stretch netting along 20 panels, leaving gaps here and there. You fence in the whole enclosure. So in spraying, to destroy the scab spores, the codling moth, and the numerous other fungi and insects, spray the whole tree, covering every twig, leaf and embryo fruit. Imperfect spraying will leave gaps through which much injury will be accomplished, and, in the case of the codling moth, will allow enough larvae to mature to form a destructive second brood (that is, of course, in sections where there are two broods in a season). The difference between ordinary and thorough work may easily mean the equivalent of the difference between No. 1 and No. 2 grade on half the crop. On a hundred-barrel crop that difference in grading would come to from twenty-five to thirty-five dollars per acre, the amount depending on the spread in price between the two grades. This estimate is not excessive, because thorough spraying will not only put more apples into the No. 1 grade, but will save many from being discarded as culls.

It is so easy for a beginner to slight the work a little. Because the tree looks wet from where he stands, he is inclined to think it is all well sprayed, when careful examination of the twigs would convince him to the contrary. Here are a few rules that every beginner should follow scrupulously:

1. Follow directions implicitly as to materials, proportions, and time of application. Consult the spray calendar for this.

2. In the case of average-sized trees, say, twenty-five years old, one barrel of mixture should be put on every ten or twelve trees at the first spraying, and at the one just as the blossoms fall one barrel should not be expected to cover more than eight trees that have bloomed. Those which did not bloom will do with less, but ought not to be skipped.

3. Spray every tree from eight angles—four angles from each side. By so doing, you cover every side of every twig in every part of the tree.

4. For the most important spray, just after the blossoms fall, drench the tree thoroughly, spraying from above, using either a tower or a very long bamboo rod, and forcing the spray downwards into the blossom end of each fruit. An elbow at the end of the rod to which the nozzle is attached will enable you to do this.

5. Put this last-mentioned spray on immediately after the petals fall, or even while the last ones are dropping. Ten days after that will generally be too late to spray effectively for codling moth.

6. Thoroughly control the first brood of the codling moth and there will be little danger of the second, unless there is an unsprayed neighboring orchard near-by. In this case, a late spraying may be necessary for the second brood.—Farmers' Advocate.

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lon service in Knox church, it being of the nature of a final memorial service, all Baptists, Congregationalists and Presbyterians taking part. A service was held in St. Boniface Cathedral this morning, which many people attended. Communion services were held in a number of the Anglican churches. Twelve thousand people were present at the memorial service which were held on the Horse show amphitheatre at 2 o'clock this afternoon. The services were of a semi-military character, and were of the most impressive nature throughout. The building was elaborately decorated for the day.

Regina in Mourning.

REGINA, May 20.—A day of general mourning was observed in Regina today, all places of business being closed in respect to the late King. Services were held in St. Boniface Cathedral this morning, which many people attended. Communion services were held in a number of the Anglican churches. Twelve thousand people were present at the memorial service which were held on the Horse show amphitheatre at 2 o'clock this afternoon. The services were of a semi-military character, and were of the most impressive nature throughout. The building was elaborately decorated for the day.

In Eastern Cities.

TORONTO, May 20.—An almost total suspension of business in Toronto marked the observance of the solemn day. Services were held in St. Boniface Cathedral this morning, which many people attended. Communion services were held in a number of the Anglican churches. Twelve thousand people were present at the memorial service which were held on the Horse show amphitheatre at 2 o'clock this afternoon. The services were of a semi-military character, and were of the most impressive nature throughout. The building was elaborately decorated for the day.

Military Services at Nelson.

NELSON, May 20.—Over 2,000 people filled the grand stand and Recreation grounds at 9:30 this morning at memorial services for the late King, held under the auspices of the 102nd Regiment, R. M. B. The drummed service was an adaptation of the Church of England funeral service under the direction of Rev. F. H. Graham, rector of St. Saviour's church, and a regimental chaplain, assisted by city clergy and St. Saviour's church choir. The funeral and city bands provided the music, the assembled crowd joining in the hymns. All places of business and stores closed this morning. Public buildings and many stores were draped, and every flag in the city at half-mast.

Services at Washington.

WASHINGTON, May 20.—President Taft, the members of his cabinet, justices of the United States supreme court, the entire diplomatic corps and nearly all of official Washington attended here today a service in memory of King Edward VII at St. John's Episcopal church. Memorial services were held simultaneously at 11 a. m. today in three of the city's largest churches by the 3,000 more delegates to the world's sixth day school convention. Each of the churches was packed, and the doors were closed to prevent dangerous crowding. Overflow meetings were organized for those who were unable to attend the main services. At the close of the prayers and the reading of the memorial service the delegates sang first stanza of "America," and then first stanza of "God Save the King." Immense audiences lined slowly out the churches at the close of the service as the pipe organs slowly played the dead march. Many of the delegates and not a few of the states representing North America in tears.