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# DUTCH BULBS

„HOW TO USE THEM TO BEAUTIFY  
YOUR HOME AND GARDEN“.



DARWINTULIPS IN LONDON PARKS. A FINE BORDER FOR YOUR GARDEN.

THE HOLLAND-AMERICAN CHAMBER OF COMMERCE  
FOR THE PACIFIC COAST STATES.

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## DUTCH BULBS.

Dutch Bulbs! Magic words, that picture glorious visions before the mind's eye, all over the world. They sound like music to anyone knowing Dutch bulbs, and no wonder. Is there any flower that helps so intensely to chase away the gloom and dreary dusk in the darkest months of the year, from our dwellings, from our very souls! How quite different our room looks in December, when winter's sadness gets wiped away by putting a pot of the scarlet tulip „Duc van Tholl” in the window sill. It is just as if these bright-red children of nature bring into your home light and beneficial warmth, foreboding hopes and expectations.

And when the dark month of January is there; when wind and snow and rain and sleet make life outdoors a misery, how delightful is it to see on the little table in your hall, or here and there in your drawing room pots of hyacinths, with their delicate colours, their beautiful shapes, and their delicious scent.

Nature seems dead during the winter months; the leafless trees and shrubs, the beds without flowers, the lack of colours in a place we knew a few months ago as a joy, as a spot full of brightness, makes our garden into a thing we don't think about anymore; till real spring comes, and trees and shrubs show their first

tender green leaves. But for those who know better, the garden will remain, even in a time when nature is generally „at its worst”, that is in January, February and March, a treasury, a place full of promises and realisations. Those who knew better, planted in autumn: Snowdrops; Winter Aconite, Glory of the snow (*Chionodoxa*); Squill (*Scilla*), of different kinds and Crocusses. And now when the sun is out in the last days of January, or the first days of February, we may venture a walk in our garden, looking for the bright yellow flowers of the Winter Aconite. And a little later, even when the snow is on the ground, the lovely Snowdrops and the blue Squill of Early Spring, with its bright blue flowers. We have not to wait till we see the first leaves to know that Nature is still wide awake; and all those little gems tell us of the coming Spring. They are all promises of a near future, when Tulips, Hyacinths, Narcissi and Irisses will take their place and cover the soil again with a blaze of colour.

To get proper results however with bulbs, in the garden, in the greenhouse, or indoors, it is necessary to know exactly how to treat them, and we therefore will give in this booklet some hints which will, if followed accurately, lead to success.

J. F. CH. DIX.

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## A few words about the history of „Dutch Bulbs”.

Bulbs are now fully acclimatized in Holland, although they were for the greatest part imported from the Far East.

The tulips, originally from Persia & Asia Minor, found their way to Constantinopel, where they were first seen (in 1554) by de Busbecq, ambassador of Emperor Ferdinand I at the Court of the Sultan, who sent seeds or bulbs to Europe. A few years later Conrad Gesner was the first who saw tulips flowering there, viz at Augsburg (Bavaria). The renowned botanist Clusius, who met de Busbecq at Vienna distributed many bulbs of tulips to his friends in the Netherlands. So the tulip came to Holland where the growing of this bulb should later on become such an important part of cultivation.

In the first part of the 17th century the cultivation of tulips developed very quickly and far quicker than one should have expected the tulip became popular. Every body who had a fair sized garden wanted tulips. Remarkable is it that at that time people valued most the variegated tulips, that is: — red, pink or purple flowers, white or yellow striped, or marbled. These variegated tulips were obtained by propagating the sports of the ordinary kinds, which contained — as a sportstripes etc. The more stripes the more valuable the tulip! It was a fine hobby,

which, alas afterwards degenerated into gambling. This foolish gambling in tulips lasted from 1634—1637. All kinds of auctions were organised; and the enormous amount of money paid for tulips made people invest their saving in bulbs. People of all trades: weavers, tailors, black-smiths etc. started bulb growing, trying to make a fortune quickly.

Capital for carrying on the bulb trade was not immediately necessary, because at the time the tulips were sold, the bulbs were still in the ground; very often they had not even bloomed. The sale therefore was merely an exchange of contracts. The same purchase changed hands several times, even on a single day. That is why it was possible for the prices of the bulbs to soar as they did and that at the time of delivery a fabulous sum had to be paid. And even that was not enough; they contrived to weigh the bulbs on an assay balance, and sold them, not per piece, but per asen (28 asen = 1 dram, 16 drams = 1 ounce). A well developed bulb weighed 1000 asen or more. At an auction one bulb of the tulip „*Vice Roi*” was sold for 4200 guilders (£ 350:0:0), and one tulip: — „*Admiraal van Enckhuysen*” fetched 5400 Guilders (£ 450:0:0).

Such an absurd trading led to the most serious excesses, and fortunately the States of Holland

in 1637 decided to stop this sort of thing and published their decision by giving out a proclamation. Hence the cultivation of tulips could be developed along normal lines, what indeed happened. After many ups and downs the present high standard was attained, and whosoever visits in spring the Dutch bulb nurseries must be struck as well by the wealth in form and colour, as well as by the long flowering season.

As early as 1585 we find a description of the *Hyacinth* by Clusius; and in 1612 the double *Hyacinth* was known. Unlike the tulip who became the favourite of the flower-lovers in a few years, the *Hyacinth* took longer time before she attained her so well deserved position. But in the years 1734—1736, the same happened with the *Hyacinth* as a century previously with the *Tulip*; the *Hyacinth* became gradually the favourite. High prices were paid and it was feared that the trade should degenerate in the same way as had happened with the *Tulip* trade. Very luckily it did not become as bad as that, and soon normal conditions prevailed. Throughout the last two centuries the *Hyacinth* has maintained its high position in the flower world, and by enormous improvements in the cultivation have the Dutch bulb-growers brought the *Hyacinth* within the range of a still growing number of flower lovers.

One of the first known bulbs is the *Narcissus*, although its cultivation only started in the 16th

century. As early as 370 B. C. the *Narcissus* was mentioned! But only since the end of the 19th century the bulb-growers devoted their full attention to the *Narcissus* and it is astonishing to see the results! The growers have made enormous strides, and they are still going on making a great variety in shape and colour. There are already „Trumpet” narcissi, with pink trumpets; Cup-shaped narcissi, with bright red cups. The modern *Narcissus* belongs to the noblest and best of whatever is produced in the open.

Most of the bulbs, apart from the three kinds already mentioned, have their own history more or less short, more or less interesting. The scope of this little book however, does not allow me to go deeper into the matter.

The cultivation of bulbs in Holland has gradually become a thing of national importance. Thousands and thousands of people earn their living with it. Everything is done to get the most perfect results, to attain the highest quality so as to keep up the high standard that Dutch bulbs always had.

To make it possible to deliver bulbs of superior quality, every precaution is taken, nothing is left to chance. It is astonishing to hear about the enormous capitals involved, to see the specially planned sheds and store-houses. The composition of the soil, and manuring is treated

along scientific lines — it is pure laboratory work. So is the continual struggle against insect pests, and special bulb diseases, which are studied in bacteriological laboratories. Practically everything is done in Holland to keep up the standard of one of the national prides: — the Dutch Bulb.

## Bulbs for the garden.

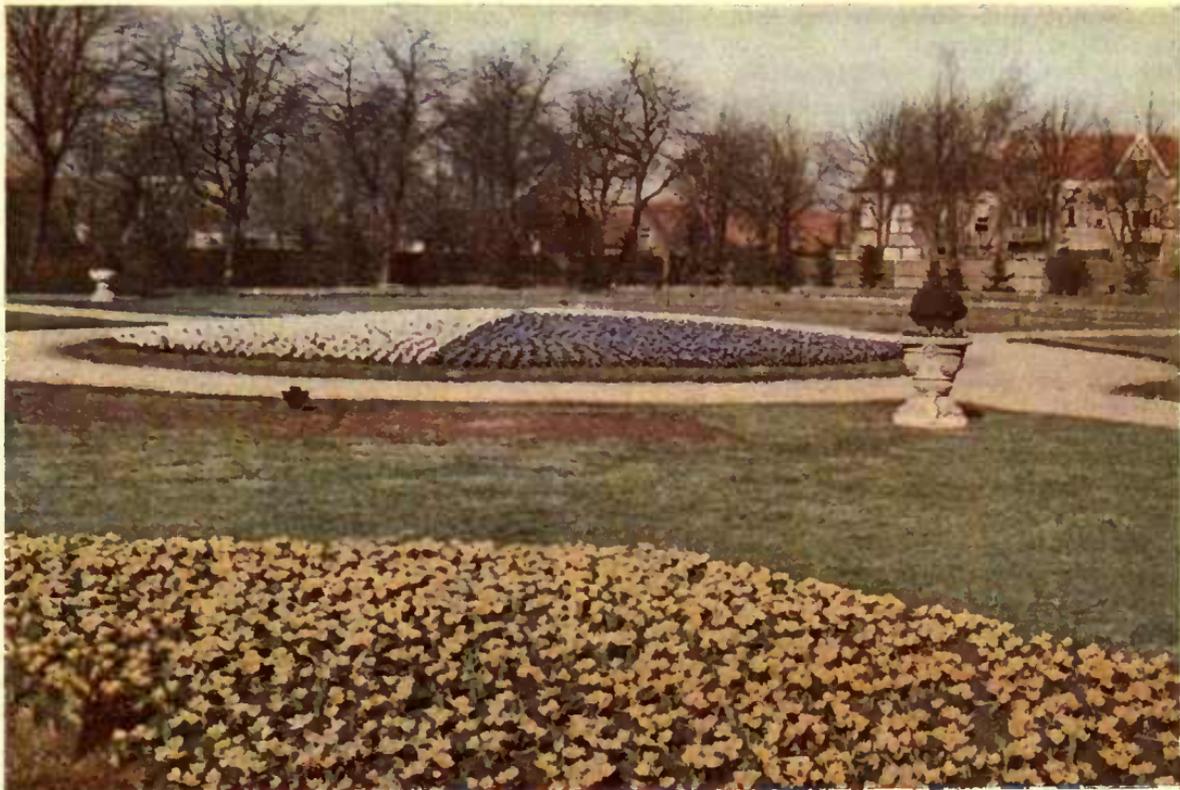
In early Spring, when Nature is still asleep, we want in our gloomy, leafless garden some colour; and no plants are able to give us such a glorious blaze of colours at that time as the bulbs. Hardly has „Jack Frost” gone — it may be that snow still covers the ground — or the snowdrops („*Galanthus nivalis*”) makes their appearance and opens their little flowers on the first sunny day. Very often they are open simultaneously with the Winter Aconite (*Eranthis hyemalis*), making bright yellow patches on the barren ground. Very soon the „Glory of the Snow” (*Chionodoxa*), joins the first comers, with its trusses of 6—10 starry, bright blue and white flowers. And those lovely little flowers don't show their beauty in succession. Usually the Mother Earth is covered with these white, yellow and blue patches of flowers simultaneously. It even happens that when a few late-comers amongst the snowdrops are still in

bloom, the Blue Squill of Early Spring or *Scilla sibirica* shows off its bright strong-blue flowers.

We have mentioned only four out of at least a dozen lovely little spring bulbs. Try to find in your garden a spot where the midwinter sun sends its rays just for a couple of hours, and you will have your results earlier than usual. Plant your Winter Aconites one inch under the surface of the soil; your Snowdrops about 2½ inches; your Squills and *Chionodoxas* about 2 inches deep; and you can expect splendid results. Don't lift them in summer: leave them undisturbed, and gradually in time to come they will grow into big patches.

And all those little bulbs are only the „Van Guard” of the big army that is coming in a month time: the Narcissi, the Hyacinths, the Tulips, Irises etc.

Did it ever happen that you were in the bulb district in Holland during April and May? If so the wealth of shape and colour must have struck you. Even on dull days the bright yellow of the Narcissi has a pleasing effect. The delicate shades of the Hyacinths have, whether you see them in bright sunlight or under a covered sky always a charm of their own. As a matter of fact, one recognizes always from afar a bed of Hyacinths; when you have once seen them you never will make a mistake; a Hyacinth by its lovely form and incomparable colours is a most



THE GARDEN IN EARLY SPRING: CROCUSES ON BEDS.

*(Foto L. Blok).*

striking plant. And when the sun shines and the sweet-scented breeze is towards you — it is something never to be forgotten. As a striking contrast look at those beds where the colours run riot, bright scarlet, reds, and yellows. They are beds of early tulips, just as clarion calls in the stillness of the spring.

A still greater attraction have the late May and June flowering tulips: the Darwin, Cottage, Breeder, Parrot, Rembrandt tulips. Nearly all of them have long elegant stems and they can be had in an infinite range of colours. Fancy a bed of those glorious tulips, slightly moved by a breeze, it is a wonder of beauty.

And realize that all the lovely things, all the beauty we have spoken about, is within your reach. Even if you possess a small garden you can enjoy the beauty of bulbs and that for a comparatively small amount. Indeed the bulb material for gardens is nearly inexhaustible and happy the man who knows well how to use it.

## Bulbs for Bedding.

The custom of making „flower beds” is a very old one, and although in the last thirty years the making of borders and the planting of flower groups among shrubs took the place of the old fashioned Victorian mosaic beds (and rightly so), a well arranged bed of bulbs, surrounded

by well kept turf, remains very attractive indeed. Of course one has to select the proper kinds of flowers to make a bed „do it”. The early spring bulbs, we spoke about in the beginning „Snowdrops, Aconites, Squills and Chionodoxas certainly will not do. They are better planted amongst shrubs, in the border of a shrubbery. Even Narcissi will not do so well in a bed. We plant them by preference in clumps in the grass — under trees or in a border. The best bulbs and corms for bedding are Tulips, Hyacinths, Anemones, Crocus (although they are lovely in the grass), Dutch, Spanish and English Irises, Scilla campanulata, etc. They all attract the eye, they have a regular habit of growing; and, because of the infinite range of colours, they can be made to a part of the whole colour scheme. The planting is comparatively easy. Rake your bed, and take away the top soil to a depth of 3 in: for tulips; 3—4, in: for Hyacinths. Put the top soil on a heap next to the bed. Dig the bed well, adding, if necessary, decayed manure. Put your bulbs on top of the raked soil, and bring carefully the top soil over the bulbs, rake the top of the now finished bed smooth. If planting Tulips, Hyacinths, or Irises, take 60—80 per sq. yard. Crocus or Scilla 90—100 per sq: yard. It depends largely on the climate whether it is necessary to cover the bed as a protection against cold weather. In the South of England it won't

be necessary, in Scotland it will. Splendid material is straw, rushes, or peat crumbled up. It must be remembered however that when milder weather sets in the covering must partly be taken away. The winter covering can be as thick as 4 inches.

## Hyacinths.

(60—65 per sq. yard).

The making of a bed of Hyacinths of one colour, gives, of course, no difficulty at all. Harder is it to plant a bed with different kinds, because we want about the same height, and also a great harmony of colours. We don't want colours that clash.

Magnificent Hyacinths for „one-kind-beds” are: —

*La Victoire*, (red);  
*Beauty*, *Generaal de Wet*, *Gertrude*, *Lady Derby*,  
*Marconi*, and *Queen of the Pinks*, (rose and pink):  
*Arentine Arendsen*, *General Vetter*, *L'Innocence*,  
*Mad. Kruger*, and *Queen of the Whites*,  
(white);

*Dr. Lieber*, *Enchantress*, *General v. d. Heyden*,  
*Grand Maître*, *King of Blues*, *Perle Brillante*,  
*Queen of the Blues*, and *Schotel*, (blue);  
*City of Haarlem*, and *Yellow Hammer*, (yellow);  
*Marchioness of Lorne*, and *Oranje boven*,  
(orange);

*King of the Violets*, *Lord Balfour* and *Sir William Mansfield*, (violet).

### Lovely combinations.

For a lovely combination of two different kinds in one bed. We recommend:

*Sir William Mansfield* (violet) and *Yellow Hammer* (yellow);

*Arentine Arendsen* (white) and *La Victoire* (red);  
*La Victoire* (red) and *City of Haarlem* (yellow);

*Queen of the blues* (light blue) and *Queen of the Whites* (white);

*Perle brillante* (light blue), and *L'Innocence* (white);

*King of the blues* (dark blue) and *Marchioness of Lorne* (orange);

*King of the blues* (dark blue) and *Yellow Hammer* (yellow);

*Grand Maître* (blue) and *General de Wet* (light rose).

We can't recommend more than two different kinds in one bed. Because there is a chance that the whole gets too motley, unless the bed is a long one, bordering a lawn. If so the best combination should be to start with: *L'Innocence* (white), going on with: *Perle brillante* (light blue), *Grand Maître* (blue), *King of the Blues* (dark blue), *General de Wet* (light rose), *Lady Derby* (rose), *Gertrude* (dark rose), *La Victoire* (red), *Marchioness of Lorne* (orange), *City of*

*Haarlem* (yellow), to finish with *Sir William Mansfield* (violet).

## Tulips.

(70—80 per sq. yard).

Just as with hyacinths one can get beautiful effects with tulips. There are many possibilities, but one has to restrict oneself to one or two different kinds in one bed. As the colours — as a rule are brighter than those of hyacinths, specially the early tulips — the chance to get a motley bed is greater.

The Duc van Tholl tulips are the best for an early show. They bloom in the end of March and the beginning of April. There is a great variety in colours: scarlet, yellow, white, rose, orange and red with yellow margin. Every variety has its own special charms.

## Single Early Tulips.

The so called single early tulips succeed the Duc van Tholl. They bloom later. They have a longer stem, a larger flower and the variety in colours is again a rich one. This kind is for bedding purposes simply brilliant. The following are splendid for single bedding: *Artis* (scarlet), *Belle Alliance* (scarlet), *Chrysolora* (yellow),

*Cottage Boy* (yellow and orange), *Couleur Cardinal* (cardinal red), *Cramoisi brillant* (crimson scarlet), *Flamingo* (clear crimson and white), *Yellow Prince* (yellow), *Generaal de Wet* (pure orange), *Hobbema* (pigeon rose), *Ibis* (dark rose), *Keizerskroon* (red with yellow margin), *King of the Yellows* (golden yellow), *Lady Boreel* (pure white), *La remarquable* (wine red-purple), *Max Havelaar* (salmon-orange), *Pelikaan* (white), *Pink Beauty* (rose), *President Lincoln* (heliotrope mauve), *Prince of Austria* (orange red), *Rose luisante* (bright rose and white), *The Rising Sun* (pure yellow), *Van der Neer* (purple), *Vermillion brillant* (vermillion), and *Wouwerman* (purple violet).

We give here only those of which we know by experience that they do extremely well. There are of course other kinds, not mentioned here, which will give satisfaction.

## Combinations of Single Early Tulips.

To get a good combination of two different kinds of single early tulips, we recommend: *Fred Moore* (bronze) and *Yellow Prince* (yellow); *Van der Neer* (purple) and *Mon Tresor* (yellow); *Wouwerman* (purple violet) and *Mon Tresor* (yellow); *Flamingo* (rose) and *White Hawk* (white); *Prince of Austria* (orange red) and *La Remarquable* (wine red purple);



THE DUTCH BULBDISTRICT IN SPRING: DAFFODILS.

*(Foto L. Blok).*

*Joost van den Vondel* (dark cerise red) and *Lady Boreel* (white);  
*Crimson Queen* (cerise red) and *Calypso* (light yellow);  
*Vermillion Brillant* (vermillion) and *Princess Hélène* (white);  
*Couleur Cardinal* (cardinal red) and *Prins van Oostenrijk* (orange red);  
*Artus* (red) and *Chrysolora* (yellow);  
*Cerise gris-de-lin* (mauve rose) and *Yellow Prince* (yellow);  
*La reine* (white roseate) and *Ibis* (dark rose);  
*Max Havelaar* (salmon orange) and *Van der Neer* (purple).

For a long narrow bed we should recommend to start with: *Lady Boreel* (white). Next to it: *President Cleveland* (pale rose), and then *Flamingo* (bright rose), *Ibis* (dark rose), *Mac Kinley* (brick red), *Vermillion brillant* (bright vermillion), *Belle Alliance* (dark scarlet), *Prince of Austria* (orange red), *Max Havelaar* (orange), *The Rising Sun* (golden yellow), *Herman Schlegel* (light yellow), *President Lincoln* (heliotrope), *Van der Neer* (purple), to finish with *Wouwerman* (purple red). The effect of this bed is delightful but it is absolutely necessary to make the bed very long in proportions to the width. We suggest a width of 4 feet, and a length of 60 feet, planting of every kind about 100 bulbs.

## Double Early Tulips.

These tulips give a very satisfactory result indeed for bedding, specially when spring is not too wet. The big flowers develop then fully, and the effect is wonderful when the sun shines. Beds in one colour are very beautiful, providing kinds with a sturdy stem are planted. So that they can stand inelement weather. The following kinds are to be recommended: *Cocheneal* (brilliant red), *Boule de Neige* (white), *Electra* (bright carmine red), *Golden King* (pure golden yellow), *Imperator rubrorum* (scarlet), *Lac van Haarlem* (violet purple), *Luminosa* (orange scarlet), *Mr. van der Hoef* (bright yellow), *Murillo* (pale rose), *Orange Nassau* (dark orange), *Peach Blossom* (bright rose), *Rosea Perfecta* (bright rose), *Schoonoord* (pure white), *Tea* (sulphur yellow with salmon) and *Vuurbaak* (glowing orange scarlet). There are of course other kinds, not mentioned here, which will give satisfaction.

### Fine good combinations.

For a combination of two kinds in one bed, we recommend:  
*Murillo* (pale rose) and *Schoonoord* (pure white);  
*Mr. van der Hoef* (yellow) and *Oranje Nassau* (dark orange);

*Mr. van der Hoef* (yellow) and *Electra* (bright carmine);  
*Imperator rubrorum* (scarlet) and *Tea rose* (sulphur yellow salmon);  
*Lac van Haarlem* (violet purple) and *Schoonoord* (pure white);  
*Lac van Haarlem* (violet purple) and *Mr. van der Hoef* (yellow);  
*Golden King* (golden yellow) and *Vuurbaak* (orange scarlet);  
*Vuurbaak* (orange scarlet) and *Schoonoord* (white).

A fine combination in one bed is:

*Electra* (bright carmine), *Mr. v. d. Hoef* (yellow), and *Schoonoord* (white);  
*Oranje Nassau* (dark orange), *Mr. v. d. Hoef* (yellow), and *Tea rose* (light yellow);  
*Peach Blossom* (dark rose), *Murillo* (light rose), and *Schoonoord* (white);  
*Rosea Perfecta* (rose), *Peach Blossom* (dark rose), and *Murillo* (pale rose);  
*Imperator rubrorum* (scarlet), *Vuurbaak* (orange scarlet), and *Oranje Nassau* (dark orange).

For a long narrow bed, we recommend (in succession): *Schoonoord* (white), *Murillo* (pale rose), *Peach Blossom* (dark rose), *Vuurbaak* (orange scarlet), *Imperator rubrorum* (scarlet), *Golden King* (golden yellow), *Mr. van der Hoef* (yellow), *Tea rose* (pale yellow), *Electra* (car-

mine) to conclude with, *Lac van Haarlem* (violet purple).

## Darwin Tulips.

It is hardly possible to say too much about this perfect tulip. Even one single bulb, with its flower most elegantly poised on its long slender stem, coming out of the beautiful greyish-green leaves is a thing of beauty. And then a whole bed of it, the lovely flowers continually moving at the slightest breeze; just as if the whole mass is alive: makes an impression never to be forgotten. One could call the Darwin Tulip the „aristocrat” of tulips. We can't recommend this bulb too strongly, even in small gardens it does well. If we plant only Darwins in the bed we want 70—80 per sq. yard. But very often the Darwins are planted in a bed of Forget-me-not, Phlox, or *Viola*. This is done to leave the bulbs undisturbed after flowering, so that they can ripen. The withering leaves are more or less hidden by the „Forget-me-nots” etc: In the latter case only about 50 are wanted per square yard.

As all Darwins make a glorious effect when planted in one colour, it is not necessary to draw the attention to one special kind. Every bulb catalogue will give you a great number of colours to choose from. When two colours are wanted for one bed, we suggest: —

*Bartigon* (geranium red) and *Gretchen* (pale rose);  
*La Tulipe noire* (black) and *Bleu aimable* (heliotrope);  
*Feu brilliant* (bright scarlet) and *La Candeur*, (cream.);  
*Ph. de Commines* (violet-brown) and *Rev. Ewbank* (mauve).

### Lovely combinations of Darwin Tulips.

*Europe* (bright red) and *Madme Krelage* (rose);  
*Pride of Haarlem* (cerise) and *Baronne de la Tocnaye* (rose);  
*Zulu* (black violet) and *Clara Butt* (salmon);  
*Bleu aimable* (heliotrope blue) and *La Candeur* (cream);  
*Scarlet beauty* (bright scarlet) and *Suzon* (pale rose);  
*City of Haarlem* (dark red) and *Princess Elizabeth* (rose).

A brilliant effect can be obtained by planting in a long narrow bed, or as a border: *La candeur* (cream), *L'ingenue* (very light rose), *Aphrodite* (silvery rose), *Edmee* (vivid rose), *Princess Elizabeth* (dark rose), *Europe* (brown red), *Feu brilliant* (dark scarlet), *City of Haarlem* (deep red), *Feu brilliant* (dark scarlet), *City of Haarlem* (deep red), *Pride of Haarlem* (cerise),

*Raphael* (purple with carmine violet), *Giant* (dark purple), *Viking* (purple), *Ronald Gunn* (slate-purple), *Bleu aimable* (heliotrope blue), *Mauve Clair* (white and mauve), *Zulu* (black violet), and *La Tulipe noire* (black).

Lovely combinations in one colour in different shades may be had by taking:

For pale rose: *La Candeur* (cream), *L'ingenue* (very light rose), *Gretchen* (pale rose), *Suzon* (pale rose), *Flamingo* (pale rose).

For rose: *Aphrodite* (silvery rose), *Madme Krelage* (carmine rose), *Edmee* (vivid rose), *Princess Elizabeth* (deep rose), *Clara Butt* (salmon rose), and *Centenaire* (deep rose).

For red: *Europe* (bright red), *Princess Juliana* (orange scarlet), *Bartigon* (geranium red), *Scarlet Beauty* (bright scarlet), *Mr. Farncombe Sanders* (scarlet red), *Feu brilliant* (deep scarlet), *City of Haarlem* (deep red), *Pres. Taft* (deep red), *Millet* (dark red) and *Pride of Haarlem* (cerise scarlet).

For mauve-violet: *Mauve Clair* (white and mauve), *La tristesse* (silvery mauve), *Anton Mauve* (pale mauve), *Bleu aimable* (blue-violet), and *Ronald Gunn* (slate purple).

For purple and black: *Raphael* (purple carmine), *Paul Baudry* (bronze violet), *Greuze* (blue violet), *Valentin* (purple), *Frans Hals* (deep purple), *Giant* (deep purple), *Viking* (deep purple), *Viola* (very deep purple), *Faust* (brow-



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*(Foto L. Blok).*

nish black), *La Tulipe noire* (black), and *Zulu* (blackish violet).

It is very pretty to make small beds of Darwins near the edge of the lawn, each of 25—30 bulbs. Every colour gets its due and the general aspect is surprisingly beautiful.

## Dutch Breeder Tulips.

Breeders are = olden time = tulips.

Bulbgrowers used to get from them the striped and marbled ones. They remind in form of flower and length of stem the Darwins. The flowers, on a long and elegant stem have about the same form but there is a great difference in the colouring. Special features in the Breeders are the Bronzes, Browns, Violets and Purples, and the beautiful bloom just as on plums and grapes. The beauty of Breeders shows at its best, when the bulbs are planted in front of evergreens, so as to give the flowers a back ground. There are many who do extremely well in a bed of one colour, especially the following kinds: *Golden Bronze* (golden bronze—very selected), *Clio* (light bronze), *Feu Ardent* (unique mahogany red), *Chestnut* (brownish black), *Dom Pedro* (coffee brown), *Hamlet* (dark bronze with light edgings), *Jaune d'Oeuf* (rose mauve with golden colour), *Louis XIV* (metal blue with deep

bronze), *Maria Louise* (salmon with orange edging), *Panorama* (stately orange red), *Prof. Schotel* (bright violet mauve), *Roi de Siam* (purple violet), *Sans Pareil* (deep violet purple), *Wilberforce* (apricot), *St. James* (old rose with bronze edgings) and *Virgilius* (shiny violet).

A group, full of harmony one can get by planting in a long bed the following in the same succession (50—100 bulbs of every colour); *Golden Bronze* (golden bronze), *Bronze King* (bronze and yellow), *Coridion* (bright yellow with bronze), *Jaune d'Oeuf* (rose mauve with wide yellow margin), *Plutarchus* (light bronze and yellow), *Clio* (light bronze), *Old Times* (copper-bronze), *Yellow Perfection* (yellowish olive), *General Ney* (olive bronze), *Ab-del-Kader* (olive with dark bronze), *Goldfinch* (dark golden bronze), *Marginata* (orange) and *Madras* (dark bronze brown).

Another beautiful border or bed may be had by planting: *Black Diamond* (brown black), *Chestnut* (brown black), *Prince Albert* (mahogany brown), *Dom Pedro* (coffee brown), and *Mon Trésor* (brown red).

A third suggestion is: *Le Miroir* (blue violet), *Sappho* (violet), *Roi de Siam* (purple violet), *Bacchus* (purple violet), *Louis XIV* (metal blue and bronze), *Chester J. Hunt* (violet) and *Charles Dickens* (rose red).

## Cottage Tulips.

The variety in Tulips is nearly infinite, especially in the late ones. We mentioned already the Darwins and the Breeders. The Cottage Tulips sometimes called the single late Tulips form a group by themselves. We saw that the Darwins and the Breeders have a great similarity in form. The Cottage Tulips are quite different. Some flowers have more or less a chalice form, others are long and pointed, some have long others have shorter stems.

Pure whites and pure golden yellows are characteristic although there are many other lovely colours. It is worth while to have a good show of them in the garden. For one-coloured beds the following kinds are highly recommendable: *Amber* (light amber), *Boadicea* (dark orange), *Bouton d'Or* (golden yellow), *Carrara* (pure white), *Columbus* (yellow-marbled red), *Gesneriana lutea pallida* (pale yellow), *Idyl* (vivid rose), *John Ruskin* (salmon pink-tinted orange), *Mr. Dames* (yellow), *Mrs. Kerrell* (fleshy rose), *Mrs. Moon* (golden yellow), *Orange King* (bright orange), *Pride of Inglescombe* (white with pink margin), *Sir Harry* (mauve rose), etc.

## Beautiful combinations with Cottage Tulips.

It is quite obvious that with this brightly coloured type of tulips one can get magnificent effects. Best is to avoid all formality in arrangement and to plant them in groups in front of shrubs. The effect is then gorgeous. A combination of *Orange King* (bright orange), and *Bouton d'Or* (golden yellow), or the pointed *Mrs. Moon* (golden yellow), with *Mrs. Kerrell* (rose), or *Sir Harry* (mauve rose), with *Solfatare* (light yellow) is brilliant. For contrast should suggest: the wine coloured *Oraniana*, with the golden yellow *Bouton d'Or*, or *Pluto* (carmin-violet), with, *Bouton d'Or*. Very effective is the Darwin *Ph. de Commines* (black) and Cottage *Bouton d'Or* or Darwin *Bleu aimable* (mauve) with *Bouton d'Or*. One gets, however one of the finest displays of the Cottage tulip, when planted in a group, with a more or less-undulating margin line in the following order: *Carrara* (pure white), *Solferino* (pale yellow), *Bouton d'Or* (golden yellow), *Boadicea* (deep orange), *Orange King* (bright orange), *John Ruskin* (salmon pink), *Mrs. Kerrell* (fleshy rose), *Sir Harry* (mauve rose) and *Doris* (rose violet). This is, of course only a suggestion, one can make, with the help of an up to date catalogue of a reliable bulb-grower a great number of beautiful combina-

tions. As in the whole reason of gardening: = taste = is the great factor.

## Broken (Striped) Tulips.

From the Darwins are the Rembrandt-Tulips arisen, and from the Dutch Breeders the Bizarres, the Roses and Violettes. It happens sometimes that, for reasons up till now unknown, all of a sudden in a bed of tulips of the same colour one or sometimes more appear with stripes — white or another colour. They were then called: broken tulips, because the unity colour was broken. Amongst those sports of the Darwins and the Dutch Breeders are wonderful specimen of beauty. They form again a type by themselves and attract the eye of every connoisseur by their form and colour. They are really marvellous flowers of a great charm. The Rembrandts, Roses and Violettes tulips are rose red, mauve or violet striped or marbled white, the Bizarres are striped or marbled yellow.

The most successful planting of this kind of tulips is in round beds, each containing 25—50 bulbs, along the edge of the lawn, separated by a yard of turf.

## A few other types of Tulips.

„The Parrot Tulips are for a bold arrangement of strong colouring, and few flowers give so

gorgeous an effect, and they twist and tumble about in a way that help their manipulator to dispose them in natural-looking, informal-looking, informal groups.”

So we read once in an English garden paper. Quite so — but our advice is to plant the Parrot tulips partly between, partly in front of shrubs and not on beds as they are inclined to „flip down”, Bulbgrowers — however — have succeeded in growing Parrots of a sturdier habit, but they are still a novelty. Those, of course can be planted in beds, and produce then a wonderful effect, because of the large fantastically formed flowers.

One of those novelties is „*Fantasy*”, a sport of the Darwin „*Clara Butt*”, and is of the same colour: a beautiful salmon pink.

Lily-flowered Tulips are also a novelty. They are crossings of the Cottage Tulip *retroflexa* and the Darwins. One of the first was *Sirene*, of a glorious satin pink with curved petals just as we see that in some lilies. It is a splendid acquisition and fine for bedding. *Adonis* (vivid pink), *Alaska* (golden yellow), *Artemis* (bright carmine rose) etc., although beautiful, have not that charm that *Sirene* has.

Mendel Tulips, crossings of the short-stemmed and early Duc van Tholl and the long-stemmed and late Darwin, are the latest novelty. They are very beautiful, but very expensive. The flo-



THE DUTCH BULBDISTRICT IN SPRING: SINGLE EARLY TULIPS.

*(Foto L. Blok).*

wers, of exquisite colouring, standing from 12—16 inches above the soil, are of extra large size and reminds one of the general colour aspect of Darwins.

Species Tulips are Wild Tulips, very useful for borders and rockeries, although a bed with *Greigi*, a large sized flower of a wonderful orange and with beautiful spotted leaves is a sight not to be forgotten.

## Tulips in combination with other plants.

We have already spoken about a combination of Darwins with Forget-me-not. To get good results it is advisable to plant the bulbs and the other plants in autumn at the same time. Plant the bulbs at a distance of 8—10 inches, and the other plants in between. A few good examples of combinations are given here:

Red — yellow or orange Tulips with blue forget-me-not;

*Arabis alpina* (white) and *Fred Moore* (Bronze);

“ “ “ “ *Cottage boy* (orange);

“ “ “ “ Red or pink Tulips;

*Primula veris* (orange var.) and Bronze or orange col. tulips;

*Phlox canadensis* (lilac) and Darwin *Rev. Ewbank*;

*Aubrietia deltoidea* (blue) and Rose Darwins;

*Cerastium tomentosum* (silver-white) with black or purple tulips.

The *Violas* are also splendid material for combined bedding taking either the tulip of the same shade as the viola, or as a contrast — colour f. i. yellow violas and purple tulips.

As we said before, an advantage of those combinations is that at the time the bulbs are finished the other plants give a nice carpet to the bed covering more or less the withering bulb leaves.

## Anemones.

(80 per sq. yards).

The Anemones with large single flowers as the Caen Anemones resembling the poppies are with their graceful green foliage very useful for bedding although the effect is more striking when planted between low shrubs. They are planted in spring in the beginning of March, one inch deep in well manured soil. The Caen Anemones are usually offered — mixed — although they are now-a-days already grown in separate colours. It is therefore not impossible to have a bed with blue, red, or violet anemones. Amongst the red ones is one fine selection under the name of *Hollandia* obtainable. They are splendid flowers for cutting. Next to the Caen Anemone comes the Anemone St. Brigid. They remind us

of the Chrysanthemum, and are good for cutting too. Three other kinds of Anemones are planted in Autumn: the St. Bavo Anemone, the intensely red *Anemone fulgens*, and the lovely *Anemone fulgens multipetala*. They give all a wonderful display of flowers and there can easily be found a small corner in every garden to plant them. But they want sun. Apart from the above mentioned one can find other named varieties, single and double, in every good bulb catalogue, giving flowers in white, rose, red, pale and dark blue of an intensity, one could hardly wish better.

## Crocus.

(100 per sq. yards).

We do not think it necessary to sing a song of praise of the crocus. If there is one bulb (it is not really a bulb as the tulip or hyacinth — but a corm), very well known, it is the crocus. And yet not everybody knows what can be done with this so extremely decorative little flower besides making beds or circular bands round rosebushes with them. The decorative effect of this flower comes forward, when we plant crocuses in our lawn, or in the border of our shrubbery or in our flower border, or here and there in our rockery. O those lovely big patches of golden yellow or mauve or purple in our lawns in early spring when everything looks bleak and forlorn,

those bright spots under the still bare shrubs! One hour of sunshine, and all the flowers are open — wide open — and give in exchange for that pale wintery sunlight strong oranges, whites and purples. It is a joy we have been hoping for, weeks and weeks before hand.

If you plant crocuses in beds do not plant them mixed. That is very rarely a success. The bed looks too motley and not restful. If formal planting is decided upon take two colours, one for border another for centre. If a very long bed is open plant in the same way as we advised about hyacinths and tulips. Start with white and go on with light blue, blue, dark blue, yellow, mauve, and finish off with violet.

## Iris.

(70 per sq. yards).

We plant the bulb in autumn about 2 inches deep. If we plant in beds it will be best to give those beds a not too conspicuous place in the garden, because when the flowering is over the withering leaves on the bed are more or less an eye sore. Better is to plant irises among other plants in the border so as to hide the withering foliage in the upshoots of the other border plants.

The flowers are simply matchless. Their shapes and colours are most beautiful and remind one very often of the orchid. That is why they have

called the Iris the „Poor man's Orchid". The Dutch Iris is the first-comer, and flowers in June. Next comes the Spanish and last of all the English Iris. It is only in time that one wins it from the other, not in brilliancy or beauty of form, they are all beauties, adorned with the most delightful colours. We do not grow the Iris for the beauty of the plant as a whole, we grow it mainly for the flower. As cut-flower the Iris is priceless.

## Scilla campanulata.

(80 per sq. yards).

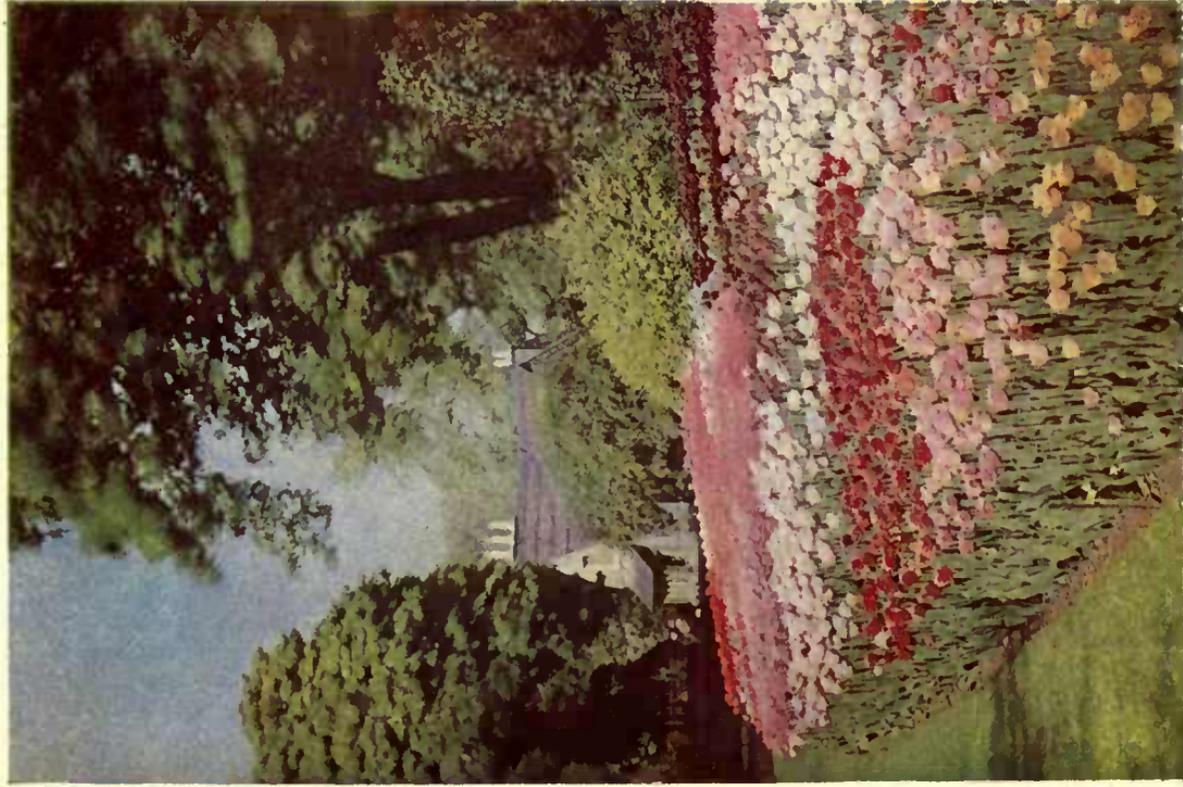
Blue Bells are extremely well suited to cover bare soil under shrubs, standard roses etc. Still, those who use Blue Bells as a bedding plant only, will enjoy the result. Blue Bells flower in May very profusely. They can be had in white, blue and pink. The foliage is a deep green and above it the elegant trusses of flowers show very prettily.

Blue Bells are planted in Autumn about 2 inches deep and may remain in the same bed for several years, just as the Crocus. Planted in a bed, they have to be thinned out occasionally.

## Bulbs for the border.

One can not imagine a modern garden without

a border. One has learned to appreciate the freedom and the restriction, the elegant lines and the natural grouping of plants. Very often borders are made to screen off or to hide ugly or monotonous environments of a garden, fences, walls, sheds, outhouses etc. Formerly one used ivy, or for that purpose evergreen shrubs or coniferae but even with some variety in colour, the eye met only green in different shades. The adding of flowers made of that same screen a thing of beauty, it became an intrinsic part of the garden. And now-a-days? A border wants at least the same attention as any other part of the garden, and we study every year very carefully how to improve it, how to make in an harmonious way the necessary changes. Fine material for a border are bulbs. The flowers give a brilliancy to the whole just then when colours are badly wanted, at a time when the border is nearly empty, or just starting. There are people who object to planting bulbs in a border, because of the bare patches left when the flowering is over. It is just here, where the judicious gardener steps in. He knows where to plant bulbs that have not to be lifted after flowering. He will plant them among the perennials. When the latter start growing the bulbs are high up and when the bulbs are finished the perennials cover with their foliage the withering leaves of the bulbs. Bulbs and Hyacinths have to be lifted.



BEAUTIFUL BORDER WITH DARWINTULIPS.

When this is done immediately when the flowering is over and they are stored for ripening in a trench, somewhere in the back of the garden, the seedlings of annuals are ready to fill up the open spaces or in case of early bulbs, there is still time enough to sow there the annuals. To be sure of success with bulbous plants in a border care has to be taken about the soil. Either the soil has every two years to be renewed or old manure has well to be worked in (this applies of course to the places where the bulbs have to be planted). A bulb wants a lot of food, it is a gross feeder, and when the bulb is finished there is not much food left.

Patches of twentig five to fifty bulbs form nicely groups.

For plants in front of the border we use of course small hardy plants 2, 3 or 4 inches high. The following ought not to be lifted, as they make gradually lovely patches: *Anemone apennina* (Apennine Windflower) bright blue and *An. ap. alba*, pure white (3 in.). They thrive well in leafy soil, and are planted in September and October 1—2 in. deep. *Bulbocodium vernum* (Spring meadow saffron) reminds one of the rose purple crocus. The 4 in. high plant flowers already in February. *Chionodoxa* (Glory of the Snow) is a lovely little plant 2—3 in high. The bulb is planted in September and October 2 in. deep. The best kinds are *Chionodoxa Luciliae*

(blue with white centre), *Chionodoxa Luciliae* *alba* (pure white), *Chionodoxa gigantea* (bigger flowers-blue) and the *Chionod. sardensis* (dark blue). The *Colchicum* (meadow saffron) flowers in autumn. The bulb is planted in July and August, and starts flowering without making foliage in October. Next spring it develops rather big leaves. It is therefore no advisable to plant *Colchicum* too near the edge of the border. The colours are white, mauve and violet.

*Corydalis* (Fume wort) is very pretty, specially *Cor: Halleri* (violet red), *Cor. cava* (purple red) and *Cor: Alleni* (yellowish white). They attain a height of 5—6 inches and flower in March and April.

About the general use of *Crocus* we spoke already. Beside the spring crocus there is a special kind called the autumn and winter flowering crocus. Of the autumn crocusses we should like to mention: *Crocus sativus* or saffron crocus, *Crocus speciosus* (dark blue) and the *Crocus zonatus* (pale mauve-rose). The bulbs of autumn crocus are planted in July and August 2 in. deep. The tulip *Duc van Tholl* wants a place right in front of the border. Planted in patches of 25 or thereabouts they will not fail to make a glorious splash of colour.

Plant right in front of the border the *Eranthis hyemalis* or winter aconite. As said before, the bright yellow flowers delight our eye when all

the plants are still fast asleep. The *Erythronium* (Dog's tooth violet) is a lovely little plant with her beautifully spotted leaves and drooping flowers 5—6 inches high, white, purple and rose. It flowers in March. Plant in September and October, about 3 inches deep in not too heavy soil.

We spoke about the *Galanthus* or Snowdrop. Big patches in the border of it next to the *Aconite* make a lovely show in very early spring.

Of the *Iris* family, we find a few specimens specially good for the border. The *Iris histrioides* (light blue) and the *Iris reticulata* (dark blue with a lovely scent of violets) attain a height of 4—6 inches. Plant them in August, early September in not too heavy soil, 2 inches deep in a sunny spot.

The *Muscari* or Grape Hyacinth is very well known. The white and the blue *Muscari* on their 5—7 inch high stem (specially the blue, with its strong colour) do very well everywhere, either in the rockery or the border, and attract at once the eye. The flowering time is March and April. Plant bulbs in October 2 inches deep. The *Puschkinia libanotica* or Striped Squill reminds one of *Scilla*. The flower spikes, about 6 or 7 inches high, appear in April. The saxony-china-blue flowers grow in trusses. Plant in early autumn 2—3 inches deep. The *Scilla sibirica* (the blue squill of early spring) is already mentioned. The strong blue, quite different from

the *Muscari* produces a lovely effect. The *Triteleia* (also known as *Brodiaea uniflora* or Spring Star flower) is a hardy bulb bearing lovely starry mauve, white flowers on a stem about 7 in. high. It flowers in April. It thrives well in any corner, provided that it is sheltered and sunny.

The taller bulbous plants add a great charm and enormous attraction to the border. As a matter of fact, all the tulips already mentioned can find a suitable spot in the border. Of course, one should not plant them indiscriminately. One should take in account the time of flowering (early or late tulips) the height and the volume of colour (do not plant f. i. a big patch of glaring red tulips leaving the surrounding part bare). Be careful with very strong colours. Do not put your Darwins, Breeders and Parrot tulips too much in the front, and do not forget that when flowering time is over there is sufficient perennial material around to hide the gradually withering leaves of your bulbs. Be careful when planting. Striking for the border is a group of tulips of the same height in mixed colours. Hyacinths do also well in a border, specially small groups of miniature hyacinths.

Very artistic are the *Alliums* (of the family of onions and garlic). (Do not pick the flowers for the drawing room please!) The *Allium giganteum* and the *Allium Rosenbachianum* (40—60 inches high) are fine objects for the border. They flower

with big violet coloured flower balls. The Fritillarias, the Crown Imperials (24—40 inches) as well as the Snake's Head Fritillary (12—18 in.) both flowering in April, May, is another bulb. splendid for the border. The first should be planted 4 in. the latter 3 in. deep, in September, early October. For growing in Southern gardens on a warm and sheltered position we can emphatically recommend the Ixias. They flower abundantly in the most striking colours, as a matter of fact the colour schemes of Ixias cannot be compared with that of any other flower. The bulbs should be planted in September or early October, about 3 in deep, and it is advisable to give them a good protection against possible frosts. The stems reach from 12—20 inches.

The Lily the aristocrat of the garden is always a feature. If planted with care, there is no trouble or difficulty whatsoever in growing them in your garden. Plant your bulbs so that the top is covered with 4 or 5 inches of soil. When your soil is heavy, dig a hole about 1 cub. foot and fill it with a mixture of loam leafmould and sand. The bulb should rest on a layer of 1 inch of sharp sand. (for draining purposes). Once planted do not meddle anymore. A lily bulb wants to settle down, does not want to be disturbed. If planted this way you can be sure of success. Plant your lily bulb amongst low shrubs or low perennials so that the young shoots

are not exposed to a scorching sun in the morning. The best lilies for the border are : *Lilium auratum* (white with golden stripes), *Lilium candidum* (pure white), the so called Madonna Lily. *Lilium croceum* (orange yellow), *Lil. Martagon* (purplish red), *Lilium pardalinum* (scarlet spotted orange), *Lilium regale* (white tinted lilac).— *Lilium speciosum* grows into a fine clump, but a little shade is necessary, *Lilium Thunbergianum* (in orange and yellow), *Lilium umbellatum* (orange and reddish brown). Last not least we plant here and there patches of Narcissi. Fine clumps of Narcissi do very well in any border. Lift the bulbs every two or three years and replant the strong bulbs, and store in an odd place of your garden the young ones.

## Bulbs for rockeries.

To add a gay note to your rockery in Spring when the Aubrietias, the Cerastiums, the Saxifragas, the Sedums, the Sempervivums etc., are just starting, gaining new life, the small bulbous plants are indispensable. Plant in small quantities (do not overdo it!) here and there. Anemone, Bulbocodium (spring meadow saffron) Chionodoxas, Crocus, Fume wort, Duc van Tholl tulips, Winter aconites, Dog's tooth violets, Snowdrops, Iris reticulata, Grape Hyacinths



A CORNER OF THE GARDEN. TRY IT!

(Muscari), Narcissus triandrus, Narcissus Bulbocodium, Striped squills, Squills, Spring star flowers, Tulipa Greigi, Tulipa Kaufmanniana, Tulipa liniflora and other kinds. One plants of course small patches because the colour patch must not be too blatant: it should only be a gay note without disturbing the quietness of the rockery.

The above mentioned plants may remain in the same place for years undisturbed. Give in the autumn a little weak liquid manure — mind : a little — and our wee friends will do their duty in early Spring.

## Bulbs in grass.

A good well-kept lawn is one of the parts of the garden to be proud of. Especially in summer when the lawn is surrounded by beds or borders full of colour. The beautiful deep green of the grass shows better because of the contrast. In the very first days of spring and in the last days of winter a lawn with empty flower beds and bare shrubs around it does not look half so cheerful for the simple reason that there is no contrast and the grass lacks that deep emerald green of summer. Yet we can make of that same uninteresting lawn again a spot of beauty by planting in autumn bulbs in it. We spoke already about planting crocuses not formal but in the

way nature scatters its flowers over the meadows. We first scatter the crocuses about over the lawn here perhaps 8 or 10 there 1 or 2 in a rather haphazard way. We bore, with a very blunt dibbler, holes and plant in each hole a crocus filling up the hole with soil. Give towards the end of autumn on a sunny day the lawn a good mowing and roll it. In spring all the crocuses will come up, and, because the grass has not been growing worth mentioning, the leaves of the crocus very soon show in the short grass. About the time that the flowers are open the grass gets its first push, a lovely bright green. The contrast between the bright crocussus and the young grass is simply lovely. What we do with crocuses, we can do with other small bulbous plants as well. For sunny places we take Bulbocodium, Crocus, Fritillaria meleagris, Snowdrops, Leucojum and Narcissi (although for the last few, we have to mow the grass round it in the first month, as the leaves are not so quickly gone). For shadowy places we should use Chionodoxa, Corydalis, Winter Aconites, Grape Hyacinths, Striped Squill and Squill.

## Bulbs for wild gardening.

The soil under standard roses, shrubs and fruittrees is usually a place were the gardener weeds, or rakes, that is all. Most people put up

with the idea that it has to be a bare patch of ground, to be kept clean and tidy. But we can make of that same bare patch a thing of beauty, if we only apply bulbs and bulbous plants. We have of course to prepare the soil a little. We fork lightly, without disturbing the roots of the existing plants and bring some old, not coarse manure, in. We plant now Winter Aconite, Glory of the Snow, Squills, Snowflakes, Fume Wort Grape Hyacinths, Dog's Tooth violets, Narcissus, Lilies (low ones), Anemones, Brodiaeas, Camassias (Quamash in three different kinds) and Star of Bethlehem. The effect next spring will astonish you. Try it, it is worth while.

## Forcing of Bulbs indoors.

There are few things more appreciated than those self done or made. So is it with children: a self made doll is far more valuable than a bought one, even that the bought one is most perfect. Exactly the same applies to grown-ups, and to grown-up-gardeners particularly. I do not know one hobby so fascinating as gardening. And the gardener is proud of his result. In that result is all his patience (months and months of it, if you please) all his toiling and moiling in all kinds of weather, all his hopes, all his anxiety. In the plant or flower or fruit he has grown is more than the actual value and that is why his

result in his own eyes has a far greater value than the same thing, may it be as perfect as possible, bought in a shop. When the weather in Autumn and Winter is so bad that work in the garden is impossible, the attention is drawn to gardening indoors. That is, in most cases, the growing of flowers, raising seedlings etc. Most of this work when there is no greenhouse available will bear results next Spring. But one wants flowers indoors in Wintertime, and for that purpose the bulbs cannot be beaten. In little wooden boxes, in earthenware pots and pans, in vases, in glasses, even on saucers, one can grow them. And nearly everybody can give a helping hand, nearly everybody of the family can have flowers of her or his own. And the costs are comparatively small. There is one „but“: only with „first rate“ bulbs one can expect success! Deal only with a good well established bulb grower, he does not overcharge. Cheap bulbs are always second hand stuff, and although there is a chance that they will turn out well one cannot rely on them.

One of the most interesting ways of growing hyacinths is to grow them in glasses. It is not only interesting but delightful because every phase of the growth can be followed. One can watch continually the development of the plant. Everybody knows the bulb-glasses — a conical form with opening in the form of a cup. The cup

is just wide enough to contain the bulb. Fill the glass with clear water so that when the bulb is put in the cup its base is about one fifth of an inch above the water. This is to prevent rotting of the bulb. One has to inspect at least once a week this water level, or rather the distance between the bulb and the water, and to refresh occasionally the water. Put now the glasses in a dark cool cupboard, and wait for the results. Do not try to apply heat so as to force the first process of growing. In a few days time white points appear at the base of the bulb, which points grow out into sturdy white roots. Gradually a yellow point will be seen at the top. Keep the glasses still in the dark, till out of that yellowish white top grows a big flower bud. When this bud has grown about half an inch standing quite free from the neck of the bulb, bring the glasses in the light — gradually — not immediately in the full light of the window sill. The yellow leaves and flowerbud will, because of the sunlight, turn green in a day or two. Dust occasionally the leaves and bud with a soft brush, or spray them with tepid water to remove the dust. To prevent the bulb toppling over when it is full-grown and the bulb gets top heavy, the glass sometimes is filled up to one-third of its height with clean pebbles. The roots work themselves in between the pebbles. Another way is, to stake them, or to use a wire support.

The most important thing is to put the bulbs not too soon in the light.

Instead of growing hyacinths in glasses one can grow them in bowls. Make a layer in the bowl of crocks. Put the bulbs on top. Those bulbs may be hyacinths, crocuses or narcissi (for the latter take either Chinese or Paperwhite Narcissi). Fill up the spaces between the bulbs with pebbles so as to keep the bulbs in position. Pour water in till the crocks are immersed and put your bowl in a dark cool cupboard. Instead of crocks, one can take very sharp sand. Do not forget adding water occasionally. The bowls with crocuses should after sufficient developing in the dark not be brought in a warm room. To get best results with crocuses, one has to keep them cool, even during the blooming period. Crocuses do splendidly on wet sand. Fill a deep saucer with sharp sand and put the corms on top. Keep the sand wet (this is a fundamental rule), and keep the saucer in a cool room.

Another way of raising flowers from bulbs is to grow them in fibre. Practically all bulbs (hyacinths, tulips, crocuses, snowdrops, scillas, chionodoxas, aconites etc.), can be grown in fibre, but keep to the fundamental rule — give the roots always the same amount of moisture — never too much — never short. It is always advisable to make at the bottom of your bowl, vase, or what else you may take for growing

your bulbs in a draining layer of crocks or sand and to keep so now and then your receptacle slanting, to pour off the superfluous water to prevent rotting.

We can expect results — if we start, say in October — if we are lucky at Christmas time, but certainly we can have flowers indoors during January, February and the first weeks of March. We can prepare our glasses, bowls etc., in relays not all at the same time, and get therefore a succession of flowering bulbs.

Simultaneously we can prepare our flowerpots, pans, boxes etc., for forcing partially out and indoors. Fill your receptacles very loosely with sifted soil, not previously used for growing bulbs in, and press your bulb in it so far that only the very top shows. Press with your thumb the soil firmly down round the bulb, and fill up the open space up to the edge of the pot. Dig a shallow trench about 4 in. deep in your garden, as much as possible out of the sun, and put your pots etc., at the bottom. Fill up your trench till there is about 4 inches soil on top of your pots, and cover end November the little mound with straw, leaves, or peat. Inspect, so now and then your bulbs, and bring the first most advanced ones indoors from the middle of January onwards. Before you cover your pots, soak the soil well, and of course, put crocks at the bottom of the trench and in the pot. The same kind of bulbs,

mentioned for fibre forcing can be used for this purpose, but do not take Darwin, Breeders or generally late tulips. Your florist or else your bulb grower will tell you what to use. In the trade are specially prepared hyacinths for forcing purposes. With this kind one gets even earlier results.

## Forcing of Bulbs in the warmhouse.

We start in the same way as described previously about potting in soil. After taking the pot out of the trench we bring it in the warmhouse and keep it there in a dark place till the flower buds appear. The temperature of the house should be kept at 65°—70° Fahrenheit. When one sees the flowerbuds put the pot in very subdued light and bring gradually the plant in stronger light. Everybody who has worked in a greenhouse will know how to act according to the different circumstances. In this way it is not only possible, but quite certain that one can have a fine display of flowers at Christmas time. The following tulips give a splendid result: all the *Duc van Tholls*, *Mon Trésor*, *Proserpine*, *Brilliant Star* and *Rose precoce*.

For half January we recommend: *Fred Moore*, *Cramoisi brilliant*, *Lady Boreal*, *La Reine*, *Prince*

of *Austria*, *Vermillion brilliant*, *Yellow Prince*, *Keizerskroon*, *Flamingo*, *Calypso*, *Herman Schlegel*, etc. Double tulips from half January onward: *Boule de Neige*, *Couronne d'Or*, *El Toreador*, *Golden King*, *Murillo*, *Peach Blossom*, *Salvator Rosa*, *Schoonoord* and *Tea rose*.

Of the Darwin tulips we mention: *William Copland* (lilac) and *Allard Pierson* (brown) ready in January. For the first weeks of February: *Bartigon* (red), *Le Nôtre* (rose), *Victoire d'Oliveira* (wine red), and *William Pitt* (red), and *Mr. Farncombe Sanders*, *Professor Rauwenhoff* (red), *Princess Elizabeth* (rose) for the end of February. Of course, all these tulips may be forced later.

We spoke already about the special prepared hyacinths for forcing. After the first two weeks of January there can be a great variety of Hyacinth blooms ready. We give here a good selection: *La Victoire* (red), *Electra* (red), *Generaal de Wet* (pale rose), *Gertrude* (dark rose), *Lady Derby* (vivid rose), *Moreno* (rose), *Queen of the Pinks* (a late one, rose), *L'innocence* (white), *Dr. Lieber* (blue), *Fürst Bismarck* (blue), *Grand Maître* (blue), *King of the Blues* (dark blue), *Queen of the Blues* and *Schotel* (pale blue), *Distinction* (purple wine red), *Lord Balfour* (violet), *City of Haarlem* and *Yellow Hammer* (yellow), *Orange boven* (orange).

Of the Narcissi, we recommend: *Golden Spur*

(golden yellow), *Emperor* (pale yellow), *Empress* (white and yellow), *Glory of Sassenheim* (white and yellow), *King Alfred* (very large flower — golden yellow), *Spring Glory* (white and yellow), *Victoria* (white and yellow), *Lady Moore* (white with red crown), *Conspicuous* (yellow with red crowns), *Sir Watkin* (pale yellow with slightly darker cup), *White Lady* (white), *Horace* (snowwhite with red bordered cup), *Ornatus* (snowwhite with red bordered cup), *Admiration* (with flower trusses in yellow and orange), *Early Perfection* (trusses of white and yellow flowers), *Double of Sion* (double-yellow).

One has to be careful with forcing crocuses. The results are splendid when the forcing is done very slowly and the temperature is not too high. Unless this is continually kept in mind, the flower buds will dry out between the too fast growing leaves.

*Irisses*, specially the new Dutch kind are grand for the greenhouse, but they will not stand quick forcing. The same applies to *Gladioli*. With great success are lately used the glasshouses for bulbforcing on a big scale. The bulbs are planted immediately in the soil and no artificial heat is used. The heat of the sun is doing the work. The flowers, thus grown are about 3 or 4 weeks earlier than those grown in the open.

## Spring Bulbs.

There are several bulbs, which are planted in Spring, to bloom in Summer. One of the most important kinds amongst them are the Gladioli. They are priceless in the summer garden, and give as cutflowers the greatest satisfaction. As with the lisses, every bud develops into bloom. They can be planted in single groups or amongst low shrubs. When planted as solitaires or in groups the taller kinds want staking.

Other kinds of spring bulbs and tuberous plants are: the Anemones (we spoke about them previously) the Tuberous Begonias (a finer bedding plant with its gorgeous flowers hardly exist) the Dahlias, Montbretias, Tigridias etc., etc., etc. They all add most abundantly to the beauty of the garden, provided they get a sunny spot and good soil.

### A few hints,

Order your bulbs in time.

Give your order to a thoroughly reliable bulb firm. Buying bulbs is altogether a matter of trust. An amateur cannot see on the outside of a bulb what it will do later on. It is the pride of a good bulb merchant to sell only the best. He knows that his new customers will come back to him when they want a fresh supply.

When you have received your parcel unpack the bulbs immediately and if it is impossible to plant them there and then, put them down, each separately, in a cool dry place out of the sun.

If one takes to heart all the hints given in this booklet, there is no doubt about one's success



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