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## Introductory

Time of Delivery. The Autumn shipping season includes the months of October and November. Some of the Mountain Flowers, Lilies, Iris, etc., can be shipped in September. Seeds can be sent at any time. Lilacs and other shrubs must wait for frost to ripen the foliage, usually late October. All the shrubs and evergreens of the spring catalogue can be furnished in the fall.

Free Delivery. Plant orders with cash, amounting to $\$ 3.00$ or more, exclusive of seeds, are delivered free. A delivery charge of 25 cents additional is required on plant orders less than $\$ 3.00$ if wanted by mail. Evergreens and shrubs travel by express at purchaser's expense, care being taken to avoid unnecessary weight.

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D. M. ANDREWS,
P. O. Box 493, Boulder, Colorado.

## Culture of Colorado Mountain Flowers

Tabloid culture formulas following the plant names of this list are intended as tirst aid to the successful use of plants that are new to many gardeners.

Being so brief, they can indicate only the set of conditions deemed ideal, without describing the latitude of adaptation that most plants possess. We, ourselves, manage to survive features of our environment that are not entirely to our liking, and plants surely cannot fail to do likewise. Exact directions for culture are easily misunderstood. The really successful gardener appears often to act intuitively. The notes referring to climate should enable the grower to understand better the natural requirements of Colorado Mountain Flowers.

Culture Tabloids. Illustration: (*10asR). This indicates a native plant, ten inches tall for the rock garden, preferring shade and acid soil.
*Native western plant.
Numerais are approximate height in inches.
a Acid soil.
k Alkaline soil.
s Shade or partial shade.
D Desert or arid conditions.
R Rock plants or alpines, rather easily grown, but requiring good drainage and rather light soil.
G Glacial plants, true alpines, from high altitudes. Include species difficult to grow; recommended to the advanced gardener with facilities and experience.
B Streamside or mountain bog, for bog or wet moraine.
M Meadow plants and others from middle elevations in the mountains, requiring more moisture than the elevated rockery or wall garden.
Climate and Culture. A rainfall map of Colorado shows small areas having a fall of less than ten inches; also, scattered areas. mostly in the mountains, having a precipitation of twenty inches or more. The remainder of the state has an average not far from fifteen inches.

It might be supposed that this deficiency would govern the culture of all Colorado plants, but this is not correct. A large part of the ornamental flora comes from the high mountain region having the greatest precipitation. Also, there are concentrations of moisture such as meadows watered by streams or springs and the partly wooded or open slopes of the subalpine zone, not very different from the rainfall conditions of the eastern United States. Little difficulty is experienced in adapting these plants to eastern gardens.

The natural condition of light rainfall explains the abundance of material suited to the rock garden which enriches the flora of Colorado. Some of these plants belong to the plain and some to the mountains. Characteristic is their small size, freedom of bloom, hardiness and facility of culture. One precaution is indicated by the fact that these rock-garden types require less moisture than afforded by level culture with high rainfall. Consequently, the species recommended for the rock garden should
be placed upon a slope or elevation sufficient for excessive moisture to run off quickly, a provision as necessary for winter as in summer.

Lest this suggestion be misunderstood, I would emphasize the need of a sure connection between soil pockets of the rockery and the moist depths below, so that deep-rooting species can penetrate at will; the rock pile with a little soil thrown over it will not suffice. This safeguard of free drainage with the facility for deep rooting will take care of a wide range of variation in plant requirements, and at the same time render their acclimatization practically automatic.

Desert plants differ from the rock garden types in requiring even more careful attention to drainage and a soil quite lean in the elements of fertility; the edge of a terrace with full sun is an ideal situation.

Alpines are of two general classes, including first, dwarf mountain types of rather dry places, to be treated as rock plants. Second, the true alpines or glacial plants, from the highest elevations, requiring more moisture and other special conditions.

For glacial plants the moraine or its equivalent offers the best promise of success. The moraine is a subirrigated bed, watered from below, and the specifications sometimes given are rather formidible. Reduced to essentials, we should have an excavation twelve to eighteen inches in depth. In a fairly retentive subsoil cementing is unnecessary. Place three to six inches of broken rock or coarse gravel over the bottom, inserting a tile or short pipe, through which to apply water, so its upper end will reach the ground level. Then lay inverted sods over the gravel and fill with a suitable compost, preferably a mixture of stone chips, sand and humus, of such a texture that it will act as a sponge, yet at the same time afford free drainage. A little experience will determine how much and how often water should be given. A few moments with the garden hose once or twice a week will give better results in the moraine than superficial daily sprinkling any where else. The benefits of a moraine for alpines are an equable supply of moisture, a desirable coolness of the soil and a favorable winter condition after watering is discontinued. A few square yards of moraine will accomodate a great many plants, and the cost per yard is little if any more than for rock garden.

The soil for Colorado plants in general should be of mellow texture, well supplied with humus, but not very rich. The natural habitat of nearly all mountain species varies from neutral to acid. Most species probably are reasonably tolerant, but when acidity or alkalinity is advised it is best to provide such in moderation.

## New or Noteworthy Plants Including Colorado Mountain Flowers

For culture of mountain flowers, see a preceeding page.
The prices of this section include prepaid delivery by parcels post on orders of $\$ 3.00$ or more; for details see introduction.

Aconitum Anthora. (Syn. Pyrenaicum). Dwarf, very hardy species with pale yellow flowers in June. Clumıs, 3-5 pips, 73 cents.

Aconitum columbianum. Mountain Aconite. (*48as) Tall, slender spikes of showy blue flowers in early summer; easily grown. Clumps, $3-5$ pips, 75 cents.

Aconitum lutescens. (*48as) Same as the last, except that the color of the flowers is creamy white. Clumps, $3-5$ pips, 75 cents.

Aconitum Bakeri. (*24aM) Finely cut dark foliage; outclasses other American species by its dwarf habit, the stout, rigid stems bearing for half their length a loose spike of deep purple-blue flowers; early sumnier. Benefited by light shade. Strong single tubers, 50 cents each, $\$ 4.00$ per dozen.

Aconitum Fischeri. Two feet tall, flowers of largest size, lovely pale blue, Sept. or Oct. Clumps, $3-5$ pips, 75 cents.

Allium brevistylum. (*10aM) A subalpine flowering onion from Wyoming with deep rose umbels, showy and very early. Clumps of $3-5$ pips, 50 cents.

Allium Geyeri. (*12M) (Syn. A. macropetalum). Light pink erect umbels, early; distinct color. Clumps of $3-5$ pips, 50 cents.

Allium Purdomii. (6R) Very dwarf with low foliage and large erect umbels of showy lilac flowers; rather late; distinct and one of the best. Small clumps, 50 cents.

Allium recurvatum. Nodding Allium. (*14R) Nodding umbels of clear rose-pink on slender stems. Single pips, $\$ 1.00$ per dozen; six for 50 cents.

Allium recurvatum album. Snowy Allium (*14R) A pure white albino type, very lovely, rare. Single pips, 50 cents.

Allium recurvatum superbum. Pagosa Flowering Onion. (*20R) Larger every way than the type, the large umbels of clear rose beautifully poised on arching stems; late flowering. Clumps of $3-4$ pips, 50 cents; 25 pips for $\$ 3.00$.

Allium schoenoprasum. Chive. This garden herb is quite ornamental for the rock garden; flowers lilac. Clumps, 50 cents.

Allium striatum. (Syn. Nothoscordium). (*8aM) An odorless species with straw-yellow flowers. Small clumps, 50 cents.

Allium textile. (*8R) A white flowered species found in dry soil. Clumps of $3-5$ pips, 50 cents.

Anchusa myostidiflora. (12sR) Sprays of Forget-me-not- flowers in April and May from a rosette of broad foliage. Each, 50 cents, $\$ 4.00$ per dozen.

Anemone globosa. Red Anemone. (*10asR) Small deep red flowers in clusters from a rosette in early spring. Each, 50 cents, three for $\$ 1.00$.

Anemone patens Nuttalliana. American Pasqueflower. (*10asR) Silky buds expand before the leaves into large flowers of pale lilac. Requires good drainage. Cumps, 50 cents, three for $\$ 1.00$.

Aquilegia coerulea. Rocky Mountain Columbine. (*20asR) A marvel among Columbines, four-inch blossoms of blue and white with long slender spurs. Large size and purity of color are
assured by planting our true native stock. Flowering size, $\$ 2.50$ per dozen, two for 50 cents.

Aquilegia hybrida, Rainbow Blend. Rainbow Columbine. An unsurpassed strain in habit, vigor of growth, length of spur and size of flower. It surpasses all other strains in variety and brilliancy of coloring, in the predominance of colorful shades of pink and rose, scarlet, velvety reds and purples, including tints heretofore unknown. In mixture only. Thrifty young roots, six for $\$ 1.00,25$ for $\$ 3.00$.

Aster canbyi. Rosy Aster. (*10aM) Showy flowers of rosepink to rose lilac in May or June. Easily grown and produces a fine bit of color for a long season. Small clumps, 50 cents.

Aster frondeus. (12aR) Early and large flowering, bluish lavender, May or June. Clumps, 50 cents, three for $\$ 1.00$.

Aster Porteri. Porter's White Aster. (*12R) A very free bloomer of midsummer, very easily grown; flowers white; for medium dry position. Clumps, 50 cents, three for $\$ 1.00$.

Aster ptarmicoides. White Upland Aster. (*15R) Suitable for dry ground, neat, non-spreading habit and good for cutting. Clumps, 50 cents, three for $\$ 1.00$.

Callirhoe involucrata. Poppy Mallow. Valuable trailer for dry soil, from a single root or tuber. The runners a foot or two in length bear deep crimson flowers all summer. Flowering roots, 40 cents, three for $\$ 1.00$.

Caltha rotundifolia. White Marshmarigold. (*8aB) The twoinch white flowers appear in early spring among the rounded leaves of dark green. At home in boggy meadows, it will thrive in half-shade if well supplied with moisture during the growing season. Clumps of $3-5$ buds, 50 cents, $\$ 4.00$ per dozen.

Campanula petiolata. Western Harebell. (*12R) The Colorado Harebell is distinct from the eastern form in its stronger and more floriferous habit, the exquisite bells of blue in utmost profusion for a long season; a satisfactory and valuable rockplant. Three for 75 cents, $\$ 3.00$ per dozen.

Centaurea rigidifolia. A 3 -foot perennial with the characteristic thistle-heads of dark rose color. In flower several weeks of June and July, and forms good permanent clumps with excellent foliage. Strong roots, 50 cents, three for $\$ 1.00$.

Chionophila Jamesii. Snowflower. (*3aG) A pretty alpine of fairly easy culture in a peaty soil with part shade. Like a miniature Pentstemon with a spike of tubular white flowers. Small clump, 50 cents.

Claytonia megarrhiza. Alpine Spring-beauty. (*3aG) A most exquisite alpine from the higher mountains. Forms a flat rosette of thick succulent foliage from a deep taproot, with many small white flowers. Its superficial resemblance is to a Lewisia rather than Claytonia. It must have a deep porous soil and a light shade has proved beneficial; not difficult. Good young flowering roots, 50 cents, $\$ 5.00$ per dozen.

Clematis crispa. Showy lavender bells all summer on an herbaceous vine of low growth. Strong flowering roots, 50 cents each.

Clematis Davidiana. Tubular flowers of clear blue in whorls
from the two-foot erect stems; fragrant; valuable bush type; 50 cents each, $\$ 5.00$ per dozen.

Clematis eriophora. Silky Clematis. (*15aR) Bushy species a foot tall with silky foliage and deep purple bell-shaped flowers in May. Clumps, 50 cents, $\$ 5.00$ per dozen.

Clematis Fremonti Fremont's Leather-flower. (*12R) Flower bells in shades of lavender and lilac leaves oval with entire margins; very distinct species of easiest culture. 50 cents each.

Clematis integrifolia. Low bush, flowering for a long succession, the handsome blue flowers having petals two inches in length. A most valuable and satisfactory plant. Clumps, 50 cents, $\$ 4.00$ per dozen.

Clematis ligusticifolia. Western Virginsbower. Vine of vigorous growth, the showy white flowers in July or August followed by fluffy seed plumes; each, 75 cents, three for $\$ 2.00$.

Clematis orientalis. Yellow Clematis. Vine, with large yellow cruciform flowers all summer mingled with the silky seed plumes. Splendid for covering a dry bank. Each, 75 cents, three for $\$ 2.00$.

Clematis recta grandiflora. A non-climbing species of the habit and appearance of C. recta, having flowers fully two inches across. These appear for a long season in large terminal panicles, are fragrant, pure white, on stems two feet tall. 50 cents each, three for $\$ 1.00$.

Clematis Scotti. Scott's Leatherflower. (*12R) A foot or two tall, glaucus pinnate foliage, flowers urn-shaped, the tips scarcely spreading, large, bluish-violet, beautiful and distinct. Strong roots, 50 cents, $\$ 4.00$ per dozen.

Clematis Simsii. Sims' Leatherflower. (*) Handsome, vigorous climber with herbaceous stems, producing all summer its dark purple bells and silky seed clusters; Texas. Very heavy roots, 75 cents each.

Clematis Texensis. (C. coccinea). Scarlet Leatherflower. A hardy herbaceous climber which starts from the ground each season, grows rapidly and blooms constantly from June till frost. The flowers are broadly urn-shaped, brilliant scarlet, and are followed by the silky seed plumes; hardy and exceptionally valuable. 50 cents each, $\$ 5.00$ per dozen.

Convallaria majalis. (Parsons' Var.) Lily of the Valley. A stout garden type with extra large bells on long stems, followed by showy scarlet fruit. Clumps, 50 cents, $\$ 5.00$ per dozen.

Delphinium Geyeri. Geyer Larkspur. (*36R) Very showy flower of the foothills with grayish foliage and long spikes of most intense blue flowers in June. Easily cultivated; suitable for dry ground, non-acid soil. Three for 75 cents, $\$ 3.00$ per dozen.

Delphinium Penardii. White Larkspur. (*20R) The stocky raceme of white flowers comes in June from the rosette of grayish foliage; root semi-tuberous, thrives in a dry sunny position. 50 cents, three for $\$ 1.00$.

Dictamnus albus. Gas Plant. Very showy border perennial forming an 18 -inch clump with handsome aromatic foliage and tall spikes of white orchid-like blossoms. Hardy, long-lived and easily grown. Cumps, 50 cents, three for $\$ 1.00$.

Dictamnus rubra. Differs from the white Gas Plant only in the color of the flowers wlich are lilac, rather than red. 50 cents, three for $\$ 1.00$.

Dodecatheon meadia, Shooting Star. One of the most charming and least known of American natives. Often more than two feet tall, the umbels bearing 20 to 30 white, pink or rose Cycla-men-like flowers of exquisite beauty. All species thrive in rich humus soil in part sliade. Clumps of $2-3$ pips, 50 cents; $\$ 2.50$ per dozen pips.

Dodecatheon Meadia, White Wings. A pure white Shooting Star of exceptional height, vigor and size of flower. Grown from one original plant, each one is exactly true to type, the magnificent umbels displayed on strong stems. Strong flowering pips, 50 cents, $\$ 5.00$ per dozen.

Dodecatheon multiflorum. Sub-alpine Shooting Star. (*12aM) From moist sub-alpine meadows, its showy, ample umbels of brilliant rose-pink and ease of culture put it at first rank among several western species. It is deserving of the widest popularity and is sure to please. Small clumps, 50 cents, $\$ 4.00$ per dozen.

Dryas octopetala. Mountain Avens. (*4aG) Very dwarf, matforming alpine shrub, with 8-petaled white blossoms and little silky seed plumes. Requires more than ordinary care in growing. Clumps or turfs, 75 cents; $\$ 7.50$ per dozen.

Dryopteris Filix-mas (Syn. Aspidium Filix-mas) (*24s) The Colorado Male Fern grows in partly shaded situations in the mountains which are either dry or quite moist, a rich humus soil preferred. The large fronds form a vase-like cluster about the crown and are of durable texture and nearly evergreen. It retailis, therefore, its splendid appearance throughout the season and has come to be the universal favorite for Colorado gardens. Established clumps with fiberous roots, 50 cents each, $\$ 4.00$ per dozen.

Echinacea pallida alba. White Coneflower. (*30R) Its slender spires are not out of place in the rock garden. It has narrow foliage, and the large flowers in June have long drooping rays of pure white. Strong roots, 50 cents each.

Epilobium latifolium. Alpine Willow-herb. (*8aGB) The tali Willow-herb is well known; but this charming alpine has a heigh ${ }^{\tau}$ of only six to eight inches with showy large flowers of rosy purple. For the wet moraine or moist half-shade. Each, 50 cents; three for $\$ 1.25$.

Erigeron Coulteri. Wolf Creek Daisy. (*12aM) Our selected type forms neat clumps about ten inches tall and the large whiterayed blossoms with yellow centers come in June. Easily grown in the open garden. Clumps, 50 cents, $\$ 4.00$ per dozen.

Erythronium parviflorum. Glacier-lily. (*10asM) Unsurpassed for its nodding yellow lily blossoms of large size, two or three on a 10 -inch stem. Does best in a loose gritty loam of loose texture planted six inches deep with part shade. Four bulbs for 50 cents.

Gentiana Bigelovii. Bigelow's Gentian. (*8R) Small blue flowers in showy clusters; dry north slopes, turfy-loam soil. Clumps, 50 cents, three for $\$ 1.00$.

Gentiana Parryi. Y'arry's Gentian. (*10aM) Large showy flowers of deepest blue, clustered. Flowering roots 50 cents, three for $\$ 1.00$.

Geranium nervosum. White Cranesbill. (*15R) A neat species of profuse flowering habit, blossoms white with thread-veins of violet. The clumps have a spread of 18 inches. Three for $\$ 1.00$, 50 cents each.

Geranium sanguineum album. This snow-white Cranesbill is a neat rock plant of restrained habit, flowering in spring and retaining its splendid foliage till late autumn. 40 cents each, three for $\$ 1.00$.

Geum ciliatum. Western Rosy Avens. (*SasM) A little gem of early spring with rosy-pink flowers followed by tinted seed plumes. Small clumps, 50 cents, three for $\$ 1.00$.

Geum turbinatum. Golden Avens. (*8asM) Beautiful glossy foliage turning red in autumn, the flowers golden-yellow. An alpine of easy culture. Established plants, 50 cents, three for $\$ 1.00$.

Gillenia stipulacea. American Ipecac. (24aM) A perennial of graceful effect with cut-lobed foliage and loose panicles of white flowers; the true species with leafy stipules. 50 cents, three for $\$ 1.00$.

Gillenia trifoliata. Leaves less finely cut, the plant a little taller. Has been confused in some nurseries with the preceeding species. 50 cents, three for $\$ 1.00$.

Helenium Hoopesii. Orange Sneezewort. (*20M) Very distinct for its three-inch daisy-like flower heads with narrow orange rays in early hummer. Very free flowering from a rosette of narrow foliage and easily grown. Clumps, 50 cents, three for $\$ 1.00$.

Heliopsis scabra. (Colorado type). (*36M) Yellow-rayed composite flowering nearly all summer. Believed to be different from the eastern plant. Clumps, 50 cents.

Heuchera brizoides. Pink-bells. (18R) Blooms freely for a long seasou and the pink sprays are very good for cutting; hardy and permanent in the garden, the rosettes evergreen. Strong plants, 50 cents, three for $\$ 1.00$.

Heuchera Ondine. A hardy white-flowered hybrid of dependable character. 50 cents, three for $\$ 1.00$.

Iris Missouriensis. Rocky Mountain Iris. (*15M) The native Iris has pale blue flowers in May. It is common in mountain meadows where it forms large masses and gives a wealth of color at flowering time. It indicates no marked soil or moisture preference, but most of the meadows are quite moist until midsummer. It transplants readily, but establishes slowly like other apogons. $\$ 2.00$ per dozen; clumps 50 cents.

Iris Missouriensis, Bluebird. A particularly vigorous type, the flowers much deeper blue, and very freely produced. Color, Bradley's violet, falls veined lighter. $\$ 3.50$ per dozen; clumps, 50 cents.

Iris Missouriensis, Snowbird. Pure white, without veining. 75 cents each, $\$ 7.50$ per dozen.

Kalmia polifolia microphylla. Alpine Laurel. (*asM) This
has established successfully and appears to be permanent in a half-shaded moraine which is kept quite moist with acid soil. A beautiful diminutive evergreen, the flowers vivid pink. Small clumps, 75 cents each, $\$ 7.50$ per dozen.

Leucocrinum montanum. Sandlily or Starlily. (*4R) Very early spring flower of crystal-white, the size of crocus, from a rosette of narrow foliage. One large clump will often bear fifty blooms in one season. Everywhere successful. Clumps, 50 cents, $\$ 4.00$ per dozen clumps.

Lewisia pygmaea. Least Bitter-root. (*2asGR) A small alpine with flowers of pink, white or deep rose, in a rosette of narrow foliage from a thick root. Three pips for 50 cents, $\$ 2.00$ per dozen.

Lewisia rediviva. Bitter-root. In a dry sunny position this little plant makes an autumn rosette of narrow foliage, from which come in early spring the very showy pink blossoms. Extra strong flowering roots, 35 cents, four for $\$ 1.00$.

Liatris ligulistylis. Mountain Gay-feather. (*15M) A dwarf, early-flowering liatris with rosy-purple heads of largest size. An easily grown subject for the rock garden or border. Strong: flowering tubers, 50 cents, $\$ 3.00$ per dozen.

Liatris punctata. Dotted Gay-feather. (*12R) Suitable for the dry rockery, several slender spikes with small purple heads. Three for 50 cents, $\$ 2.00$ per dozen.

Lithospermum multiflorum. Puccoon or Yellow-bells. (*15R) The many-flowered panicles of small yellow bells suggest Mertensia, to which it is related. The root soon forms a large crown bearing numerous stems, in bloom for a long time. A valuable addition to the rock garden and easily grown in a semi-dry position. Two for 50 cents, $\$ 2.50$ per dozen.

Malvastrum coccineum. Scarlet Mallow. Low-growing, colonyforming plant for dry sunny slopes. The gray foliage and copper-scarlet flowers in short terminal racemes afford a pleaiing effect when planted in groups. Two for 50 cents, $\$ 2.50$ per dozen.

Mertensia alpina. Alpine Bluebell. (*6aG) Little dark azure bells in clusters on many stems from a single root. Each 50 cents.

Mertensia Bakeri. Baker's Bluebell. (*6asR) Distinct for its downy, silvery foliage. Flowers in clusters of intense azureblue, a free bloomer and extremely early. 50 cents, three for $\$ 1.00$.

Mertensia Ciliata. Mountain Bluebell. (*18M) A vigorous streamside species of graceful habit with fine glaucus foliage. The drooping sprays of pale blue flowers continue for a long season and the foliage lasts all summer. Clumps, 50 cents, $\$ 4.00$ per dozen.

Mertensia coriacea. (*6asG) The most charming of several alpine bluebells. The leaves are broad and leathery (coriaceous) and retain their blue-green freshness all or most of the summer. The flower bells are comparatively large, broadly flaring, and are intensely blue. The root-system tends to form mats among the rocks, but spread very slowly. For the alpine garden or
moraine, but not difficult. Small clumps, 75 cents; $\$ 6.00$ per dozen.

Mertensia lanceolata. Prairie Bluebell. Grows in open dry fields and blooms in early spring. The delicate blue flowers appear first in a compact cluster which expands into an open panicle a foot in length. 50 cents, three for $\$ 1.00$.

Mertensia paniculata. Lungwort. (*15asM) A strong-growing northern species, not common in gardens; flowers deep blue and rather large; easily grown; 50 cents, three for $\$ 1.00$.

Mertensia Platensis. La Plata Bluebell. (*15asM) A luxuriant plant of some of the high mountain passes. The flowers larger and deeper blue than M. ciliata which it resembles. 50 cents, three for $\$ 1.00$.

Mertensia pratensis. A tall branching species with green foliage and a profusion of small drooping bells. 50 cents.

Nymphaea polysepala. (Nuphar) The yellow pond-lily of mountain lakes. Suitable for any pool with 12 to 24 inches of water. Flowers cup-shaped, four inches across, yellow, with dark red stamens. $\$ 2.00$ each, three for $\$ 5.00$. Extra size roots same price by express.

Oenothera brachycarpa. Yellow Evening Primrose (*6R) The 3 -inch blossoms appear for several weeks in leafy rosettes which form colonies on dry slopes; fragrant, at first clear yellow, turning to orange-scarlet. Two for 50 cents, six for $\$ 1.00$.

Oenothera caespitosa. Tufted Evening Primrose. (*6R) An exquisite rock plant of rosette formation, forming colonies in gravelly soil; the 3 -inch white flowers age to rose. Two for 50 cents, six for $\$ 1.00$.

Pentstemons flower better and are more permanent on a well drained slope or elevation in a lean, light soil without much humus. A surfacing of gravel or stone chips is the only mulch required, as the leaves of the Colorado species are often evergreen and seem to like the sunshine even in winter.

Pentstemon Crandallii. (*3R) A creeping, mat-forming Pentstemon with nearly evergreen foliage. An indispensable rock garden type, fitting itself among the rocks in a charming manner. Flowers early, in shades of blue, in clusters from numerous short runners. Small established clumps, 50 cents, three for \$1.25.

Pentstemon humilis. (Syn P. virens). (*10R) One of the most dependable, very permanent and easily grown; preferring a dry sunny slope. Foliage forming mats of dark green all summer, flowers in spikes of intense blue. Its small size, fine foliage and excellent habit are sure to give it preeminence for the rock garden. Clumps, 50 cents; smaller plants, $\$ 2.50$ per dozen, $\$ 15.00$ per hundred.

Pentstemon humilis albus. A very attractive albino type of humilis with snow-white blossoms, flowering at the same time. Flowering plants. 50 cents eacli, three for $\$ 1.25$.

Pentstemon secundiflorus lavendulus. (*12R) This mountain form of secundiflorus is somewhat dwarfer and makes better clumps than the type from the plains and is easier to grow.

It has glaucus foliage and large, widely-opening flowers of lilac or rose. Clumps, 50 cents, three for $\$ 1.25$.

Polygonum bistortoides. (Syn. Bistorta) (*15aM) A choice alpine which unfortunately belongs to a family of ill-repute. It is neat and never weedy, sends up two or three slender stems bearing the dense, oblong flower heads of white or light rose. Two for 50 cents, $\$ 2.50$ per dozen.

Pontentilla bicrenata. (*3R) A most diminutive Cinquefoil for the semi-dry rockery in full sun. It forms neat little rosettes with the showy yellow blossoms nestling among the leaves in April. Two for 50 cents, $\$ 2.50$ per dozen.

Potentilla pulcherrima. (*10M) Of some 80 Rocky Mountain Potentillas, the few I am offering rank among the best. Pulcherrima, as the name indicates, is beautiful both in flower and foliage. The flowers are clear yellow and the five-parted leaves are touched with silver. Easily grown, and not too large for the rock garden. 50 cents, three for $\$ 1.00$.

Potentilla uniflora. (*4asG) An alpine forming small tufts or cushions of silvery foliage with yellow flowers in spring. Not difficult under alpine treatment. 75 cents.

Primula angustifolia. Alpine Primrose. (*2asG) A diminutive alpine for the careful grower, for moist moraine. Little tufts bear several flowers of deep crimson. 50 cents, three for $\$ 1.00$.

Primula Parryi. Parry's Primrose (*12asB) A robust subalpine growing along cold mountain streams, for the wet moraine. Rosettes of broad foliage, the stem bearing a large umbel of showy crimson flowers with yellow eye. Strong roots, 50 cents, three for $\$ 1.00$.
|Ranunculus adoneus. Alpine Buttercup. (*4asG) An alpine, flowering near the snow, with remarkably large yellow flowers. Not difficult to establish in the moist moraine. Clumps, 50 cents, three for $\$ 1.25$.

Salvia azurea. Azure Sage. (*36D) A native of dry plains, hence, excessive moisture and fertility will result in an undesirable loppy growth with few flowers. Summer-blooming with flowers of light azure-blue. Two for 50 cents, $\$ 2.50$ per dozen.

Salvia Pitcheri. Dark-azure Sage. (*36D) Identical in habit and requirements, but with later flowers of deep azure. Two for 50 cents, $\$ 2.50$ per dozen.

Saxifraga brachypus. Saxifrage. (*10asGB) Open panicles of small white flowers from a rosette of succulent foliage. A moisture-loving sub-alpine. Clumps, 75 cents, two for $\$ 1.25$.

Scabiosa caucasica. Blue Bonnet. The flowers of clear laven-der-blue are borne in large heads on slender stems all summer; one of the few perpetual bloomers among hardy plants. A good cutflower. Each 50 cents; three for $\$ 1.00$.

Sedum Ewersii. Stonecrop. Handsome rock creeper with flat foliage and clusters of pink flowers in late summer. Three for $\$ 1.00$.

Sedum Kamtschaticum. Orange Stonecrop. Broad-leaved creeper, foliage redish purple in winter; flowers deep golden yellow. Three for $\$ 1.00,10$ for $\$ 2.50$.

Sedum Maximowiczi. Amur Stoncrop. Erect stems a foot high with yellow flowers in broad terminal clusters. Three for $\$ 1.00$.

Sedum Integrifolium. (Rhodiola interifolia). Ruby Stonecrop or King's Crown. An alpine of the Colorado mountains for moist soil and partial shade. Forms neat little clumps, the low stems terminating in small clusters of dark ruby-red flowers which last a long time. Small clumps, 50 cents, three for $\$ 1.25$.

Sedum rhodanthum. (Clementsia rhodantha). Clement's Stonecrop. A native sub-alpine in moist soil and prefers half shade. Under best conditions it forms clumps a foot in height, with terminal clusters of pink flowers. Three for $\$ 1.00$, 10 for $\$ 2.50$.

Sedum stenopetalum. ( $* 4 R$ ) Low tufted plant for dry rockery, thickly set at flowering time with golden stars. Two for 50 cents, $\$ 2.50$ per dozen.

Sedum stoloniferum coccineum. Valuable cover plant for dry or sterile slopes, the fleshy leaves and stems reddening in autumn and winter, flowers amaranth-red. Three for 75 cents, 10 for $\$ 2.00, \$ 12.00$ per hundred.

Sibbaldia procumbens. (*4asR)) An alpine forming low tufts, valued chiefly for its foliage effect. Clumps, 50 cents.

Sibbaldiopsis tridentata. (Potentilla tridentata) (6as) A charming evergreen species with glossy foliage and white flowers. Clumps, 50 cents, three for $\$ 1.25$.

Silene acaulis. Cushion pink, Moss Campion. (*2asG) A mosslike alpine forming broad green tufts, from which the stemless flowers of deep rose appear in early spring. Successful in the moist moraine with light shade after wintering with a thin mulch of excelsior. 50 cents, three for $\$ 1.00$.

Smelowskia Americana. Alpine Candytuft. (*6asG) Manystemmed tufted alpine with clusters of cruciform, white or rosetinted, very fragrant flowers. Foliage silver gray. Easily grown in moist moraine. 50 cents, three for $\$ 1.25$.

Synthyris plantaginea. Kittentails. (*8aR) An attractive rock plant of easy culture, silky spikes of bluish flowers in early spring from a rosette of broad foliage. $\$ 3.00$ per dozen; clumps, 50 cents.

Synthpris reniformis. Kidneyleaf. (*6asR) Round, evergreen dentate leaves and violet-blue flower spikes in early spring. A rock plant of superlative value for humus and part shade. $\$ 3.00$ per dozen; clumps, 50 cents.

Thalictrum alpinum. Alpine Meadow Rue. (*2asG) A miniature alpine with foliage like a maidenhair fern, delicate but of lasting texture. Established tufts, 75 cents.

Thalictrum Fendleri. Mountain Rue. (*18aM) Excellent foliage and sprays of greenish flowers; easily grown. Clumps, 50 cents.

Thalictrum venulosum. Maidenhair Rue. (*12asM) The smallest of ten western species, except alpinum, it comes within the limit of any rock garden, and its delicate foliage is retained through the season. 50 cents. three for $\$ 1.00$.

Trillium grandiflorum. Wakerobin. The familiar large white Trillium of eastern woods. Three for 50 cents.

Trillium recurvatum. Prairie Trillium. (10sR) From Illinois, in open woods. Flowers purple-brown, foliage blotched with brown. Three for 50 cents; $\$ 1.50$ per dozen.

Trillium sessile Californicum. California Trillium. (*10sR) Hardy, a strong, thrifty grower and desirable. Flowers white, large. Two for 50 cents, $\$ 3.00$ per dozen.

Trollius albiflorus. White Globeflower. (*10asBM) Flowers early, large, sulphur, becoming pure white. Fine established clumps, 50 cents, three for $\$ 1.00$.

Trollius Europens. Yellow Globeflower. (12asM) Exquisite spring-flowering plant for partial shade, with deeply cupped flowers of pure yellow like an enormous buttercup. Each 50 cents, three for $\$ 1.00$.

Trollius, Orange Globe. Similar, but taller, and flowers deep orange. 50 cents, three for $\$ 1.25$.

Valeriana acutiloba. Valerian. (*12aM) A splendid rock plant of easiest culture. The white or rose-tinted flowers are in showy clusters on stems constantly arising from the leafy tufts in spring and early summer; very neat habit and long flowering season. $\$ 3.00$ per dozen, clumps, 50 cents.

Viola bellidifolia. Alpine Blue Violet. (*2as) Little tufts with dark blue flowers. Moraine or shaded rockery. Two for 50 cents, $\$ 2.50$ per dozen.

Viola nephrophylla. (*4R) The blue violet of the plains near the foothills, thriving in moist or dry soil. Two for 50 cents, $\$ 2.50$ per dozen.

Viola pedatifida. (*4R) Blue, with large flowers and finely cut foliage; much easier to grow than V. Pedata. Two for 50 cents, $\$ 2.50$ per dozen.

Viola rugulosa. White Violet. (*8s) Clumps with leafy stems and large white flowers. Two for 50 cents, $\$ 2.50$ per dozen.

Yucca angustissima. (*36RD) Extremely narrow, grass-like foliage; very rare, only a few available. \$2.00 each.

Yucca baccata. Datil. (*24D) Low, stiff-leaved, resembling an Agave. The largest flowered species. Hardy, but requires a dry, sunny position. 75 cents, three for $\$ 2.00$.

Yucca Coloma. (Syn. Y. neomexicana) Soaproot. (*36R) Best of all the yuccas for the rock garden because of its small size. With its miniature rosettes of bluish foliage and slender flower spikes, no hardy species is more attractive. $\$ 1.00$ each, three for $\$ 2.75$.

Yucca filamentosa variegata. A hardy variegated type and a thrifty grower. The leaves have narrow stripes of green and creamy white in summer like a ribbon grass; tinged red in winter. 75 cents each, three for $\$ 2.00$.

Yucca glauca. (*36D) (Syn. Y. angustifolia, not Y. angustissima) This is the soaproot, common throughout Colorado, flowers very large, sometimes tinged outside with purplish. 75 cents, three for $\$ 2.00$.

Zygadenus elegans. Star Hyacinth. ( $* 15 \mathrm{sM}$ ) A liliaceous plant of easy culture for moist shade, with slender stems and raceme or panicle of white flowers with a green star. Clumps of 3-5 pips, 50 cents.

## Colorado Hardy Cacti

The native cacti of Colorado are hardy to any degree of cold, and may be wintered safely out of doors anywhere in the United States. A necessary precaution for growing them in eastern rock gardens is to dry them off gradually in late summer and autumn so the plants will enter winter in a fully ripened condition, indicated by partial shrinkage of their tissues.

If kept in active growth too late, so they are plump and succulent when winter comes, losses may be expected.

To insure a quick runoff of moisture at all times, and particularly in winter, a dry rockery, a slope or the edge of a terrace, logether with a soil texture to facilitate drainage, will best insure success with these floral gems of the semi-desert.

The liardy cacti thrive best in a fertile soil, of about equal parts of good loam, leafmold and sand. This should be lightly surfaced with clean gravel to prevent contact of wet soil at base of plant and to prevent splashing. Avoid a clay soil, strong or organic fertilizer and an excess of lime; a nearly neutral soil is desirable. Accustomed to more moisture than the strictly desert species, they do not resent frequent showers during the growing season. but should be given their siesta of sun-baking after flowering.

Cacti may be shipped and planted at any season of the year. During the period of growth the plants are soft and easily bruised, so that greater care must be exercised in handling in early summer: early spring delivery insures a full display of bloom, and enables the plants to become permanently established.

The stock of cactus plants is growing in nursery beds under conditions more favorable than in nature. All are carefully selected, so that each plant supplied is a perfect specimen. It costs more to produce such stock than to merely "collect" and sell from "dry storage." If you have not acquired a fondness for cactus, try a few specimen clumps in a corner of your rock garden and note the excellent effect throughont the year. Correct scientific names will be appreciated by many, in view of the confusion which prevails with this class of plants. Dr. Rydberg's Flora of the Rocky Mountains is authority for the names used.

Prices. Cactus plants are not priced prepaid, for the reason that specimen plants are heavy. It is my wish to feel free to put the largest possible value into the plants selected for you without skimping to keep within postage limits. All shipments where possible will be made by express, purchaser paying charges at destination. Small orders will be sent by mail when requested, but this will necessitate the selection of smaller sizes. With express shipments of $\$ 5.00$ or more I will include extra value equivalent to average transportation cost. Light-weight crates or cartons are used for all shipments, and safe delivery is guaranteed.

Coryphantha Missouriensis. (Syn. Mamillaria.) Low and small, dark green, gray spines, yellow flowers, red berries. $2-1$ heads, 50 cents; singles, assorted. $\$ 2.00$ per dozen.

Coryphantha similis. A very rare species of same description, except that in every way it is of larger size and more showy. Each, 50 and 75 cents; clusters, $\$ 1.00$ to $\$ 2.00$ each.

Coryphantha vivipara. Higher and larger, the purplish spinetufts on prominent tubercles, flowers deep rose-purple. Flowering plants, 50 cents; specimen plants or clusters, 75 cents to $\$ 1.00$.

Echinocereus aggregatus. (Cereus coccineus.) Turkshead Cactus. Single plants cylindrical with prominent ribs, tufted with straw-colored spines; eventually forming hemispherical masses of many heads. Flowers large and very showy, brilliant scarlet. Clusters of $2-3$ heads, 50 cents and 75 cents; $4-5$ heads, $\$ 1.00$; large specimen clusters, $\$ 2.00$ to $\$ 5.00$.

Echinocereus caespitosus. Cylindrical, with mostly radial spines which form a close network; flowers purple.

Echinocereus goniacanthus. Kingscrown. Dark green, broadly ribbed, spines very stout and comparatively few. Plant of distinct appearance and very ornamental. Flowers deep scarlet, abundant, large and very showy. Selected singles and clusters, 50 cents, 75 cents and $\$ 1.00$ each; large specimen clusters, wellshaped and very beautiful, $\$ 2.00$ to $\$ 5.00$ each.

Echinocereus viridiflorus. Pale green flowers give name to this species, of smaller size but clothed in a lacework of brilliant spines. Single or clustered, always attractive. Clumps of 2-4 heads or large singles, 50 cents; specimen clumps, $\$ 1.00$; assorted, according to size, $\$ 1.50, \$ 2.50$ and $\$ 3.50$ per dozen.

Echinocereus viridiflorus, form with central spines. Prominent central spine projecting from each tuft of radials; otherwise like the type. Selected specimens, 50 cents, 75 cents and $\$ 1.00$ each.

Pediocactus Simpsoni. (Syn. Echinocactus Simpsoni.) Pincushion. Ballshaped, densely netted with brown or purplish spines, with a crown of bright pink flowers in early spring. Two to five inches broad. 35 cents, 50 cents, 75 cents and $\$ 1.00$ each; assorted, $\$ 2.50$ to $\$ 5.00$ per dozen.

Pediocactus Simpsoni, Snowball. A lovely albino type with snow-white spines and pink flowers; rare. Extra select specimens, $\$ 1.00$ each.

Opuntia. The rank, large-jointed prickly pears are out of keeping with the small rock garden. The following are the most distinct and are attractive for their flowers and neat habit.

Opuntia arborescens. Tree or Candelabrum Cactus. Cylindrical stems, freely branching into tree-like form to a height of two feet or taller; flowers deep rose-red, fruit yellow. 50 cents, 75 cents and $\$ 1.00$ each.

Opuntia fragilis. Brittle Cactus. Joints an inch or less in length, very spiny, scarcely flat. The form, O. fragilis var. arenaria, has flat joints of larger size; either form, small clumps, 50 cents each.

Opuntia Schweriniana. Nearly alpine, forming neat clumps of oval joints nearly two inches in length; flowers yellow. Small clumps, 50 cents.

Opuntia Xanthostemma. Very attractive and distinct for its rose-red flowers; forms neat clumps of medium size. Established flowering plants, 50 cents.

## Hardy Phlox Introductions

In line with the improvement of other garden flowers, the six varieties of Phlox offered below set a high standard of excellence in this popular group.

The several colors have been refined to an unusual purity and clearness of tone, and with the exception of Robin Hood, all have individual florets of largest size. They are besides characterized by strong stems of medium height and vigorous habit.

Colorado. Scarlet-red (Ridgeway), a little brighter than spec-trum-red, with pale crimson eye and faint halo. Color is exceptionally clear, the old flowers mostly dropping before bleaching, and the mass effect carries with much intensity. Stem strong. of medium height, truss and florets large, the fragrance rich and pleasant. 75 cents each.

Osceola. Rose, with Tyrian Rose and flush of scarlet. Suggesting the intense color quality of F. Cortez, but a better grower and with more ample panicle. Medium to tall with strong stems and fine dark foliage. 75 cents each.

Robin Hood. Between Tyrian Rose and Amaranth Purple. with slightly deeper eye. Very uniform, intense color, the brightest of the so-called crimsons. Stem, stout, medium dwarf, quite freely branching. 75 cents each.

Silverton. Clear pale lavender, at first suffused light mauve, eye light phlox-purple with a halo. Of medium height and a strong grower, individual florets exceeding $13 / 4$ inches. Mass effect, pale lavender-blue. 75 cents each.

Snowcap. Broad pyramidal panicle, the large florets effectively arranged to form a huge cap of snowy white. Strong stem, medium to tall, outstanding for the size and excellent form of panicle. 75 cents each.

Tanager. Bright rose, with a glow or overlay of brilliant scarlet-red. In the color series with Elizabeth Campbell, Enchantress and Thor, having more intensity than Thor. Panicle rather open, branching into an informal profusion of glowing color, the florets of large size, stem medium to dwarf. $\$ 1.00$ each.

Collection. One root each of the six for $\$ 3.50$, delivered prepaid. Price per dozen, any variety except Tanager, $\$ 6.00$; six of one kind at the dozen rate. Strong, field-grown roots of flowering grade.

## Peony Introductions

There are many gardens where the Peony is valued for what it is and always will be, the climax of blossomtime. Fashions change, and garden space is limited; survival is for the best.

Of many peonies which have originated in my garden, a few have been outstanding each year for freedom of bloom, and for the excellent form, character and substance of the flower. From these I now select the best for introduction, and include with
them a few successful introductions of former years. Another important feature of all of these is strength of stem, sufficient to carry a heavy flower. Among the Japanese types a symmetrical flower is deemed requisite, and this is determined mainly by a double or triple row of guard petals whose overlapping prevents warping or twisting. The time required to fully prove these characters has resulted in a plentiful stock, which permits at once lower prices than usually asked for choice introductions. The prices are for full size standard divisions and include prepaid delivery.

Calypso. (Andrews, 1925.) Japanese type. Guards pale amar-anth-pink, the full fimbriate center deep tyrian rose tipped with yellow. Large flower of unusual and pleasing color contrast on medium stems. $\$ 3.50$ each.

Crystola. (Andrews, 1932.) Extra large, flat rose type, pure crystal-white without markings or remnants, greenish reflex, rich fragrance. The outstanding white in any collection. $\$ 5.00$ each.

Diadem. (Andrews, 1932.) Japanese type. Center and guards an even color like Felix Crousse to deeper, the broad


New Pink Peony, "Majestic"
ligules with yellow-encrusted tips. Stiff stems of medium height. $\$ 3.50$ each.

Flamingo. (Andrews, 1926.) Single type with a triple row of strongly incurved petals of glowing pink. enclosing the yellow stamens. Short stiff stems, early, good foliage, a splendid landscape variety. $\$ 2.50$ each, $\$ 25.00$ per dozen.

Golden West. (Andrews, 1932.) The rose-pink guards enclose a full bomb center of golden to orange-yellow ligules. On established clumps the center is often mingled with pink. A sunset color effect of exceptional richness. Early, profuse bloomer, short stiff stems. $\$ 5.00$ each, three for $\$ 12.50$.

Hespanola. (Andrews, 1923.) Deep uniform shell-pink, very large full rose type, medium late, durable cut-flower. \$2.50 each, $\$ 25.00$ per dozen.

Majestic. (Andrews, 1932.) Flowers of largest size on rather short ample stems. A perfect rose type, expanding freely, with no tight buds, establishes quickly and is a sure and profuse bloomer. Color rose-pink, of even tone, with a rich fragrance. $\$ 5.00$ each.

Manitou. (Andrews, 1923.) Full rose type, developing a Hower of great depth. Color cameo-pink; exquisite rose-fragrance. $\$ 2.50$ each.

Montrose. (Andrews, 1932.) No. 66. Large, strong-stemmed deep rose bomb, prominent guards of identical color. Few or no laterals, extremely floriferous, an ideal cut-flower, pleasantly fragrant. $\$ 2.50$ each, $\$ 25.00$ per dozen.

Nimbus. (Andrews, 1923.) Rose or bomb-rose type, a full deep flower of large size. Color white, suffused at first palest blush-buff. Opens freely but slowly, durable cut-flower on tall stems. $\$ 2.50$ each, $\$ 25.00$ per dozen.

Shavano. (Andrews, 1925.) (Shav-an-o.) Japanese type. Clear rose-pink, guards broad and overlapping, the full high center composed of long, laciniate ligules, heavily edged with gold. Outstanding for its sparkling brilliancy and large size: tall stiff stems. $\$ 5.00$ each.

Silver Plume. (Andrews, 1932.) Japanese type. Very large, silvery pink, with salmon-pink center. The long, narrow fimbriate ligues of plumose formation create an incomparable effect. Medium tall, floriferous, fragrant. $\$ 5.00$ each.

Collection of twelve introductions described above, listing at $\$ 44.50$, will be delivered prepaid in the United States for $\$ 38.00$.

## Hardy Garden Lilies

Never before have lilies held a higher place in popular esteem. As evidence there may be noted the recent appearance of two books and a host of short articles on lilies and their culture. With a better knowledge of their needs there is less reason for failure, and indeed the varieties here presented are as easily grown as almost any other hardy flower. Tenuifolium, bulbiferum and the elegans varieties are ideal lilies for the rock garden. The entire list embraces stock of my own growing and will be freshly dug and delivered without unnecessary exposure.

This eliminates at the outset one common source of failure, namely, the long period between digging and replanting, attended with gradual loss of vitality. Early orders are recommended. Prices include delivery.

Lilium bulbiferum. One of the best of the European lilies, a dependable bloomer and long-lived in the garden. Flowers rich orange yellow, erect, $4-8$ in an umbellate cluster on 18 -inch stems. Flowering bulbs, 30 cents each, $\$ 2.50$ per dozen, $\$ 18.00$ per hundred. Extra large, 40 cents, $\$ 3.50$ per dozen.

Lilium callosum. A late, slender lily, a foot or two in height; flowers nodding, apricot, tinged red; easily grown. 30 cents each, $\$ 3.00$ per dozen.

Lilium Davidii. Briefly described as a refined Tiger lily, being smaller in all its parts and without the bulbils along the stem; late July or August, flowers orange, with spots, nodding. 40 cents each, $\$ 3.50$ per dozen.

Lilium elegans. A garden group of lilies derived from the species L. Thunbergianum, and because of their dwarf habit are excellent for the rock garden. Unnamed, $\$ 1.25$ per dozen.

Lilium elegans aurantiacum. Salmon-yellow flowers, unspotted. 30 cents, $\$ 3.00$ per dozen.

Lilium elegans aureum. (Robustum) Orange-yellow with conspicuous dark spots. 30 cents each, $\$ 3.00$ per dozen.

Lilium elegans Horsmannii. Dark blood-red with small dark spots. 30 cents each, $\$ 3.00$ per dozen.

Lilium Henryi. As tall and vigorous as a Tiger Lily, the flowers golden-yellow. Large bulbs 50 cents each, $\$ 5.00$ per dozen.

Lilium pardalinum. Leopard Lily. Orange, tipped red, with large dark spots. 35 cents, $\$ 3: 00$ per dozen.

Lilium Parryi. A superb west-coast lily with pure yellow, richly fragrant flowers; height 3-5 feet; grows best in a deep, humus-sandy soil with light shade. Flowering bulbs, 75 cents, three for $\$ 2.00$.

Lilium parvum luteum. A small Pacific coast lily, best in part shade; flowering bulbs, 75 cents each.

Lilium Sargentiae. A very elegant lily with large white trumpets, the tube purplish and green outside; strong flowering bulbs, $\$ 1.00$ each, six for $\$ 5.00$.

Lilium tenuifolium. Siberian Coral Lily. One of the most brilliant of lilies. Early-flowering, two or three feet tall and carries 8 to 20 nodding, fragrant flowers of brilliant scarlet. Flowering bulbs 30 cents, $\$ 2.50$ per dozen, $\$ 15.00$ per hundred. Extra large, 40 cents, $\$ 4.00$ per dozen. Little bulbs, some will bloom, $\$ 7.50$ per hundred, 25 for $\$ 2.00$.

Lilium Tigrinum fl. pl. Double Tiger lily. 30 cents, $\$ 3.00$ per dozen.

Lilium Tigrinum splendens. Improved Tiger Lily. Strong flowering bulbs, 30 cents each, $\$ 2.50$ per dozen. Extra large, 50 cents each, $\$ 4.00$ per dozen.

Lilium umbelatum. A grandiflora strain with exceptionally large flowers and broad petals or orange, flamed scarlet. 30 cents, $\$ 3.00$ per dozen. Mammoth bulbs, 50 cents each, $\$ 4.00$ per dozen.

Lilium umbellatum Hybrids. These were obtained by crossing L. umbellatum with pollen from Lilium elegans Orange Queen. The result is a wide range of color from yellow and orange to deep red, some plain, others spotted, some with an overlay of blush or scarlet. Only by planting a number of bulbs can one appreciate the infinite variation. Large flowering bulbs 30 cents each, $\$ 2.50$ per dozen. Per hundred, not prepaid, \$15.00.

## Iris Introductions

Genuine novelty in color with an improved physical constitution has been my aim in breeding. My introductions of 1931, as with earlier introductions, are not believed to displace any existing varieties. A restrained output of new varieties by any breeder should put the mark of conservatism upon his product.

Prices are for delivery prepaid, after July 1st, 1932.
Desert Dawn. Andrews, 1931. A glorious yellow blend with the effect of radiant illumination, retaining small areas of pure lavender in the tips of both standards and falls. Flowers of very large size, durable substance and splendid form, held well aloft on 42 -inch stems which are erect but freely branched. Price $\$ 17.50$.

Gilead. Andrews, 1931. A self blend of golden yellow bronze. Ground color deep colonial buff with an overlay of amber, only slightly deeper in the falls. Flower very large with high arching standards; 42 -inch stems well branched and free fowering. Price $\$ 15.00$.

Mountain Mist. Andrews, 1931. Pale mauve bronze, approachgray. A delicate pastel tint which does not fade in our bright sunlight. Large flower of ideal form on 40 -inch stems. Price $\$ 8.00$.

Rusty Gold. Andrews, 1931. Orange-bronze blend; like tarnished gold with a flush of copper in the falls. Vivid coloring of intense carrying quality, very free flowering. Medium sized flower of exceptionally fine form and substance on a well proportioned plant; a landscape variety of magnificent promise. Price $\$ 12.00$.

Collection. The four Iris Introductions described above will be delivered prepaid during the autumn of 1932 for $\$ 40.00$ cash. If spring delivery is preferred, you can have your plants reserved and delivered then, upon payment of $\$ 10.00$ now and the balance, $\$ 30.00$, when delivered. Either date gives the full natural increase for the season of 1933 .

## Own-root Hybrid Lilacs

"Own-root" Lilac bushes growing and flowering on their own roots are everywhere conceded to be the best. Grafting or budding on Privet is a quick way to produce increase of stock, but unless closely watched the bushes will grow up to sprouts from below the graft, or fail in vigor because of an inadequate root-system. For long-lived bushes with a perfect root-system. plant own-root lilacs from Rockmont Nursery.

Graft-blight. Lilacs grafted on privet are commonly affected by graft-blight, due to the incompatibility of the privet to support and nourish the lilac, except for a brief period. If the lilac always developed own-roots above the graft, there would be little to fear. This it seems loth to do, and a large share of grafted plants make $f \in w$ or no roots of their own. Graft-blight, although not an infectious disease, results finally in death from starvation, and is incurable.

All our lilacs are grown from cuttings. There can be no sprouting from an inferior stock, and health, vigor and long life are assured.

Sizes and Prices. Lilacs are offered in four grades; prices are quoted for the grades in stock. Do not order sizes where no price is given. "Small" bushes have been all transplanted and are beautifully rooted. The price of small bushes includes prepaid delivery for orders totaling $\$ 3.00$ or more; otherwise include 25 cents additional for postage. All other sizes are to be shipped by express, purchaser paying charges.

Time of Shipment. I recommend fall planting. Autumn delivery begins about October 20th and continues through November. If you prefer spring delivery, reserve your stock now to make sure of the varieties you desire, and have it shipped any time before April 15th.

Note: D. following name indicated double flowers; S., single.
Small 1½-2 Ft. 2-3 Ft. 3-4 Ft.
Alba Grandiflora, S., white_--------\$ .75 $\$ 1.00 \quad \$ 1.50 \quad \$ 2.00$
Charles Joly, D., deep purple_---- $.75 \quad 1.00 \quad 1.50$
Charles X, S., vinous-red_--------- . $75 \quad 1.50$
Congo, S., red-purple -------------- . 75

| 1.00 | 1.50 | 2.00 |
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Hippolite de Maringer, D., mauve--
Hugo Koster, S., lavender_-------- 1.00
Lamartine, S., lilac-rose_-_--------- 1.00
Leon Gambetta, D., rosy-lilac_------ 1.00
Ludwig Spath, S., dark purple _---- . 75
Marie Legraye, S., white_---------- . 75
Maximowiczi, D., lav.-purple ------- 1.00
Mme. A. Buchner, D., rosy-lilac _--- 1.00
Mme. C. Perier, D., white_---------
Mme. Lemoine, D., white ---------- . 75
President Grevy, D., blue-lilac_----- . 75
Princess Alexandria, S., white
?
R. J. des Loges, D., mauve_--------

Senator Volland, D., red-purple_----
Siebold, D., old ivory _--------------1.00
Toussaint Louverture, S., blue-pur.- 1.00
Virginite, D., orchid-pink ---------- 1.00
1.50 2.00
$\begin{array}{llll}\text { Edouard Andre, D., pink----------------- } & 1.00 & 1.50\end{array}$
Ellen Willmott, D., white ---------- 2.00
Emile Lemoine, D., lilac _---------- 1.001 .50
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Viviand Morel, D., blue-lilac -------- . 75
2.00

Volcan, S., vinous-red --------------- 1.00
2.00
2.50
1.50

Waldeck Rosseau, D., rosy-mauve --
1.50

## Seeds of New or Noteworthy Plants

For the reason that various seeds ripen after the writing of this catalogue, it is not possible to determine exactly what kinds will be obtainable. I expect to have all the following kinds. Additional and new kinds will be included in the spring catalogue.

Seeds of perennials may be sown in late autumn in frames or beds (to germinate the following spring) and in my own experience this method proves very successful. I recommend it wherever local conditions will permit. Cool greenhouse treatment will advance many things so that flowers may be had the next summer, but the action of frost appears to facilitate germination in many cases. Seeds sown in flats, placed in a cold frame and transferred to the greenhouse in January or February should give excellent results.

Warranty. I supply seeds which I believe to be of sound quality and able to germinate under proper conditions. They are sold at a nominal price. Successful culture depends upon conditions not under my control. Upon these considerations, please do not ask for replacement or reimbursement in case of failure.

Seed Prices. The seeds listed as follows are put up in packets at the uniform price of 25 cents per packet; minimum order, $\$ 1.00$. Seeds offered by weight are also sold in packets.

Anemone globosa. Red Anemone or Windflower.
Anemone patens Nutt. American Pasqueflower.
Anemone pulsatilla rubra. Red Pasqueflower.
Aquilegia coerulea. Rocky Mt. Columbine. (1⁄4 oz., \$1.00.)
Aquilegia, Rainbow Blend. (1/4 oz., \$1.00.)
Argemone hispida. Prickly Poppy. White.
Callirhoe involucrata. Trailing Poppy Mallow.
Campanula petiolata. Western Harebell.
Delphinium elongatum. Mountain Larkspur.
Delphinium Geyeri. Geyer's Larkspur.
Delphinium Penardii. White Larkspur.
Delphinium subalpinum. Alpine L.
Erysimum asperum. Western Wallflower.
Gentiana Bigelovii. Blue flowers in clusters.
Gentiana elegans. Western Fringed Gentian. (Biennial.)
Gentiana Parryi. Parry's Gentian.
Ipomoea leptophylla. Bush Morning-glory.
Iris Missouriensis. Blue Flag.
Lepachys coumnaris. Yellow Coneflower.
Lepachys col. pulcherrima. Painted C.
Liatris ligulistylis. Mountain Gayfeather. ( $1 / 8$ oz., \$1.00.)
Lilium Parryi. Parry's Lily of California. (1/8 oz., \$1.00.)
Lilium tenuifolium. Corral Lily. (1/2 oz., \$1.00.)
Lithospermum multiflorum. Yellow Bells.

Lupinus argenteus. Silvery Bluebonnet.
Mentzelia decapetala. Evening Star.
Oenothera coronopifolia. An Evening Primrose for the dry rock garden, six inches tall, flowering all summer, one-inch white flowers turning to pink.
Oenothera serrulata. Yellow Shrubby Evening Primrose.
Oxytropis Lambertii. Crimson Loco.
Pentstemon alpinus. Alpine Pentstemol.
Pentstemon angustifolius. (P. coeruleus.) The Coerulean Pentstemon is dwarf, early, and the sky-blue flowers and rosy buds are very beautiful.
Pentstemon humilis. Dwarf Blue pentstemon.
Pentstemon secundiflorus. Rose-lilac flowers.
Pentstemon stenosepalus. Deep purple.
Pentstemon Torreyi. (Colorado) Scarlet. ( $1 / 8$ oz., $\$ 1.00$.)
Pentstemon unilateralis. Tall Pentstemon. ( $1 / \neq$ oz., $\$ 1.00$. )
Polemonium confertum. Musk-flower. (Alpine.)
Polemonium mellitum. White Polemonium.
Polemonium occidentale. Violet Polemonium.
Polemonium robustum. Tall, deep blue.
Primula Parryl. Parry's Primrose.
Quincula lobata. Purple Starflower.
Salvia azurea. Azure Sage.
Sedum stenopetalum. Mountain Stonecrop.
Sidalcea neomexicana. Indian Mallow.
Trifolium dasyphyllum. Pink Alpine Clover.
Verbena ciliata. Wild Verbena.
Yucca glauca. Soapweed.
Zygadenus gramineus.

## Colorado Evergreen Seeds

Seeds of the following conifers germinate easily and may be grown in a frame or bed under a lath screen, the lath spaced for half-shade. Sow the seeds in late autumn or early spring, covering spruce about $1 / 8$ inch and pine $1 / 4$ to $1 / 2$ inch. Mulch seedlings the first winter with excelsior, remove shades second summer, and transplant the following spring. Water as needed during dry weather. Sold in small packets at 25 cents; also by weight.

Picea Engelmannii. Engelmann Spruce. (Ounce, \$2.00.)
Picea pungens glauca. Select Blue Spruce. Saved from the finest blue trees, our XX strain. ( $1 / 4$ ounce, 75 cents; ounce, $\$ 2.50$; pound, $\$ 20.00$.)

Pinus edulis. Piñon, or Nut Pine. Northern Colorado seed. (Ounce, \$1.50.)

Pinus flexilis. Western White Pine. (Ounce, \$2.50.)
Pinus scopulorum. Western Yellow Pine. (Ounce, \$1.00.)
Pseudotsuga Douglasii. Douglas Fir. (Ounce, \$2.00.)

