The Annual Species of Coreopsis.

Coreopsis is a genus of common American plants, of which no less than seventeen species are found widely distributed through the Mississippi Valley and the southern states. Plants of this genus are sturdy, vigorous growers, generally hardy, and when cultivated do not demand the care commonly bestowed on delicate species. This genus does not appear to have received much attention from American gardeners, and our seedsmen have heretofore offered few named varieties. But the plant is not, where the plant grows, is deservedly popular, and many varieties have been bred and offered.

The larger number of the species are annuals, but some are biennials. In this northern climate the seed should be sown under glass in March, the young plants potted off when about an inch high and planted out in May. They begin to flower in June, and continue to bloom profusely till frost time.

The annuals are collectively known, in distinction from the perennials, as Calliopsis. Among these the best known are Coreopsis tinctoria, C. cardinamella, C. coronata, and C. Drummanna. The last two are low-growing species, bearing the flowers on long pedicles above the rather thick foliage. They do not make as good an effect in massing as some others. Probably the most widely cultivated species is Coreopsis tinctoria, a pretty, slender-growing plant, much branched, and with very narrow linear leaves. The plant is yellow rays with a purple-brown blotch at the base, but they are numerous varieties, in some of which the entire flower is purple-brown. Coreopsis is better adapted for massing than for planting singly. C. tinctoria makes a good background for an herbaceous border. Some of the dwarf varieties, differing from the typical erect and shapely bear their blossoms in masses. These make a pretty border for a bed. Variety may be added by proper selection of colors. C. tinctoria, cut with long stems, makes a pretty bouquet for a mantel piece or large dining table. I have seen a pleasing effect obtained by cutting the stems long and placing them in a loose bouquet in a large vase. They fill out the sides of the dish and readily suggest both the lack of compactness which characterizes the growing plant and its natural gracefulness and delicacy.

Correspondence.

The Vitality of Seeds.

To the Editor of Garden and Forest:

Sir,—Referring to Mr. Hatfield’s article on the vitality of seeds, I find it necessary to call attention to the difficulty and slowness Ipomoea coccinea.

Full as interesting are the unfavorable conditions under which seedlings will thrive. A trellis around the trunk of a tree was covered last year with this Ipomoea, which, as usual, was sown broadcast. Some seedlings neutralize cracks in the top of the stump, and this year two small plants about a foot or so high are flourishing without any soil to grow in. They have not even seem to feel the need of water before the last rains set in.

A neighbor of mine picked a seed-pod of Cobaea scandens late in the fall and allowed it to ripen in the house during the winter. On planting the seeds the following spring the plants came up with variegated foliage and remained the variegation throughout the season. The ripening of the seeds in the house rather than on the vine caused, perhaps, a certain disease of both seed and plant.

L. C. L. Jordan.

Range of Pacific Coast Lilies.

To the Editor of Garden and Forest:

Sir,—Since writing the series of articles on Pacific coast lilies, which have appeared in GARDEN AND FOREST, some interesting facts regarding their distribution have come to my notice. The range of Lilium pardalinum extends to Julian, in San Diego county, California, well beyond the Lower California line. This gives this species a distribution from Lower California to British Columbia and to Lake Winnipeg, truly an immense range.

I have only known Lilium Washingtonianum as existing in the Sierra Nevada and Cascade ranges. I now have definite knowledge that where the Rogue and Klamath rivers break through the Sierra chain, L. Washingtonianum follows them to the sea. They are common in the Klamath range. L. Washingtonianum follows the Trinity, the great southern tributary of the Klamath, and I have at hand specimens of it collected only thirty miles from Eureka, in Humboldt County, California. At this point L. Washingtonianum makes a wonderful growth, being rarely less than seven feet high, and the flowers are pink. Some stalks were fourteen feet high.

Lilium rubescens, its near relative, is found at points not over fifteen miles below the Rogue, but I find it difficult to think that I can safely say that I have determined the northernmost extension of the one and the farthest southerly extension in the Coast Range of the other.

C. P. Purdy.

The Sycamore Blight.

To the Editor of Garden and Forest:

Sir,—Observing Mr. Olmsted’s request in GARDEN AND FOREST of July 21st concerning the blight of the Plane tree, I report from this vicinity that the native Planataus occidentalis suffered badly. Many appeared in June quite dead, but some are now thrusting out new sprouts which may or may not mature. I know of but eight trees of P. orientalis about here. All of them are vigorous trees. These four did not suffer at all. The other four are weak trees, and did suffer some in June, but less than the natives did, and have now substantially recovered.

When Planataus orientalis is to be planted I think a small vigorous tree should be selected, good ground chosen and kept heavily top-dressed for several years. Trees treated in this way flourish for a dozen years at least. They do long beyond my experience.

New Bedford, Mass.

Thomas M. Stetson.

The Elm-leaf Beetle.

To the Editor of Garden and Forest:

Sir,—I have occasionally read in your journal of machinery for spraying trees on a large scale as a remedy against insects and diseases. Would you consider this machinery available or to employ some one to undertake the spraying of the trees by contract? If you advise the purchase of a machine, what particular pattern would you recommend, what is its probable cost, and where could it be obtained?

S. Morristown, N. J.

[These questions cannot be answered categorically without some further knowledge as to what our correspondent proposes to accomplish. The best advice we can give him is to get the Year Book of the Department of Agriculture for 1896 and study the article by Dr. L. O. Howard on The Use of Steam Apparatus for Spraying. There is no doubt that a steam engine can be made useful for the protection of shade-trees, and that it is the most economical way to treat a large number of trees, and the letter which follows the only gives the result of one fairly successful experiment in this direction. A very excellent apparatus is now used in the public parks of this city, which was constructed under the supervision of Mr. E. B. Southwick, the entomologist of the department. Some such apparatus ought to be at the command of every city and town which takes any interest in its shade-trees. Dr. Howard’s article goes into the details of the subject, gives the history of many attempts which have already been made in this direction, with the reasons for their failure when they have failed, and it is full of suggestions which cannot but be useful to any one who takes any serious practical interest in the matter.—En.]

Our Street Trees and the Elm-leaf Beetle.

To the Editor of Garden and Forest:

Sir,—The question of preserving our street trees from insect devastation is becoming quite a serious one in some of our cities, especially where the Elm-leaf beetle is most active. Spraying the large trees is rather expensive, and much less difficult, but can be readily done if steam power is employed, as has been demonstrated in several cities. Most city governments are poor, however, and many persons seem to believe that such work will be done by others themselves, that the beetles will be kept in check by means of natural enemies without man’s assistance. It is only when trees are already die from the effects of attack by the beetles, and such object-lessons as may be found in Milford, Norwalk and