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THE COLLECTION OF *IPOMOEA BATATAS* L. IN "ALEXANDRU CIUBOTARU" NATIONAL BOTANICAL GARDEN (INSTITUTE)

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Abstract: The article describes the growth characteristics of the shoots in seven cultivars of *Ipomoea batatas* L., available in the collection of the Laboratory of Indoor Plants of the "Alexandru Ciubotaru" National Botanical Garden (Institute).

Key words: Convolvulaceae, *Ipomoea batatas*, habit, landscape design.

Ipomoea L. is a genus of about 500 species in the bindweed family (Convolvulaceae), occurring in the tropical and warm-temperate zones of both hemispheres [1]. It consists mostly of perennial climbing or creeping vines, but also erect herbs, shrubs or small trees. Among the representatives of this genus, *Ipomoea batatas* L. is one of the most popular, as it is one of the most valuable food crops, commonly known as sweet potato, widely cultivated in tropical and subtropical countries for its edible tubers. The sweet potato is native to Mexico, but is not known in the wild. It is an herbaceous perennial vine with long creeping stems, bearing entire heart-shaped or palmately lobed leaves. It has been used as a food plant since ancient times, for example, in Peru, it has been cultivated for over 8000 years.

The decorative qualities of this plant gained popularity only about 30 years ago. It was first used as an ornamental species in the USA. The decorative foliage and the unpretentiousness of this plant attracted the attention of gardeners and horticulturists. Thanks to these qualities, ornamental sweet potato quickly gained popularity. Now, many cultivars are widely used in landscape design as annuals in the warm season. Currently, it is about to become perhaps the most popular deciduous ornamental plant for container gardening that is used on balconies and terraces.

The first specimen of *I. batatas* was introduced in the collection of tropical plants of the "Al. Ciubotaru" National Botanical Garden (Institute) in 2008. It was brought from Sri Lanka. The cultivar was 'Pink Frost'. The collection currently includes seven cultivars.

The study of the growth features of the shoot system in the cultivars available in the collection made it possible to distinguish three growth habits. All of them, like most representatives of the bindweed genus, are plagiotropic (having the longer axes of roots or branches slanting from the vertical line). However, when studying the features of the branching topography in various cultivars, we identified three growth habits: 1- creeping, 2- decumbent, 3 - bushy.

The growth habit 1 - creeping - is characterized by long, evenly branching creeping stems. The growth habit 2 – decumbent – differs in that the branching of the shoot is partially shifted to the base of the plant, but the plant does not take a bushy shape. During development, the shoots soon become plagiotropic. The growth habit 3 – bushy – a plant

in which ascending or upright stems branch mainly at the base and remain erect for a long time, but later become drooping. The shoots in these cultivars are much shorter than in the previous ones [2].

We assigned the 'Black Heart' cultivar to creeping ones. It is characterized by long, twig-like shoots with uniform branching, 60-100 cm long.

Four cultivars of ornamental sweet potato are characterized by decumbent habit: 'Margarita', 'Blackie', 'Pink Frost' and 'Sweet Lime Potato'. In plants with this growth habit, a rather intense growth of shoots was noted. During one season, when grown in pots, the plants reached a length of up to 80 cm and looked robust and bushy, with thick foliage.

Two cultivars from our collection have been classified as bushy plants: 'Midnight Lace' and 'Light Green'. They are characterized by long-standing upright shoots, the length of which does not exceed 30 cm. With further growth, they become droopy, looking somewhat like beautiful flowy curtains.