Methods of multiplication of some perennial floriculture specia for mosaics and borders *Aubrieta deltoidea, Arabis albida*

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**Abstract** An important principle in choosing floricultural species for setting different arrangements is the ability of adapting to the demands and pedoclimatics condition and urban stress factors (dust, pollutants, artificial lighting etc.), and a number of biological features (life-cycle, staggered flowering) [4]. In this respect we consider that species such as deltoid *Aubrieta*, *Arabis albida* are plants suitable for rustic facilities, especially in alpin or vegetable carpets, borders, spots with contrasting colors, etc. Some go very well also to pots or flower pocket, with a high tenacity on winter no matter how low the waist is. This article appeared in our concerns to ensure high multiplier rate of these species to ensure the necessary material in sufficient quantities.

**Key words** *Aubrieta deltoidea*, *Arabis albida*, biostimulatori, coeficient de multiplicare

*Aubrieta deltoidea* Stev. (syn. *Arabis caucasica* Willd.), has placed the leaves alternate, toothed, silver-colored, oblong - lanciolate. *Arabis albida* "variegata", has leaves with the marginal or very pale yellow [5]. It has perfect white flowers (with calyx composed of 4 equal sepa, corolla with 4 cruciform petals) [2]. Abundant flowering occurs in spring through to early summer (March to June) depending on variety, many of them would not need flowers, offering excellent decoration through delicate bushes with colored leaf.

*Aubrieta deltoid taurus* (syn. *Aubrieta tauricola*) is a plant with large dark violet flowers. It was also noticed that it is a plant that reaches heights of about 25 cm high, has a creepy look, stems are branched, the leaves are gray-green and flowers are pale blue-lila, are slightly above the leaves together, sometimes 3-4 in odd bunch [3].

The two species are multiplied by dividing bushes, and the study aims to find out an efficient solution to achieve larger amount of material.

**Material and Method**

In the research made for this study, was followed the multiplication of species studied in a growing season. Species taken in the study were: *Aubrieta deltoidea and Arabis albida.*

In the experiment were used 10 plants of each parent species. For this experience were used bush segments that have been made indurated. They were indurate in shelter on a substrate of sand and pea 1 / 1. Results obtained from experiments were analyzed statistically using analysis variant. Based on indications found in the methodological literature [1] were calculated the limit differences in this way were seen real and significant differences between experimental variants and media experience.

**Results and Discussions**

The study was meant to follow the way of obtaining many more descendants. For this reason a protocol was drafted, which contained three methods of work. The first version which was called the witness variant used parts plant rooted simple, without being treated with anything. A second variation has used segments rooted plant treated with a bistimulator called RADISTIM and the third option was used with another substance called NAPORIZ.

The two products, RADISTIM and NAPORIZ, are talc powder containing auxine ANA (naphthyl-acetic acid) and AIA (indolil-acetic acid) in different percentages with positive influence on the induration. Thus comparing the behavior of plants under the action of these substances bio energizing.
The results of multiplication of the two species are shown in Table 1. At Aubrieta deltoidea species were produced 34 segments rooted bush to witness variant, 57 segments of the bush rooted to the variant treated with RADISTIM and 39 segments bush cuttings to the variant treated with NAPORIZ.

At Arabis albida resulted 25 segments bush rooted at the first possibility, the witness, 32 segments bush rooted in variant treated with RADISTIM and 28 segments of the bush rooted variant treated with NAPORIZ.

At Aubrieta deltoide the differences between variants analysis was based on the V1 variant, variant untreated (witness). The variant V2 registered a real and very significant difference. In variant V3 the difference is real and significant.

From the Table 3 data it can be seen that the species in Arabis alpina L. in variant V2, the difference obtained in real and significant distinct and at V3 variant obtained difference is real significant.

**Table 1**

<table>
<thead>
<tr>
<th>Species</th>
<th>No. of mother plants used</th>
<th>Segments rooted bush (buc.)</th>
<th>MARTOR</th>
<th>RADISTIM</th>
<th>NAPORIZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aubrieta deltoidea</td>
<td>10</td>
<td>34</td>
<td>57</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Arabis albida L.</td>
<td>10</td>
<td>25</td>
<td>32</td>
<td>28</td>
<td></td>
</tr>
</tbody>
</table>

**Table 2**

<table>
<thead>
<tr>
<th>No.</th>
<th>Variant</th>
<th>No. of plants obtained</th>
<th>Relative number</th>
<th>Differences</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>V1</td>
<td>34,00</td>
<td>100</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2.</td>
<td>V2</td>
<td>57,00</td>
<td>168</td>
<td>23,00</td>
<td>***</td>
</tr>
<tr>
<td>3.</td>
<td>V3</td>
<td>39,00</td>
<td>115</td>
<td>5,00</td>
<td>*</td>
</tr>
</tbody>
</table>

**Table 3**

<table>
<thead>
<tr>
<th>No.</th>
<th>Variant</th>
<th>No. of plants obtained</th>
<th>Relative number</th>
<th>Differences</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>V1</td>
<td>25,00</td>
<td>100</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2.</td>
<td>V2</td>
<td>32,00</td>
<td>128</td>
<td>7,50</td>
<td>**</td>
</tr>
<tr>
<td>3.</td>
<td>V3</td>
<td>28,00</td>
<td>112</td>
<td>5,00</td>
<td>*</td>
</tr>
</tbody>
</table>

**Conclusions**

Following the study presented in this work we can say as a final conclusion that at the two species analyzed was observed an increase in the number of rooted plants, compared with untreated variant, both in situations in which was used as bio energizer RADISTIM and also NAPORIZ.

Also, it can be stated that both species results in best with distinct differences and very significant were the variations obtained in the treatments were performed with RADISTIM. This highlights the superiority of this product in response to indurate of two species presented in the present study.

The highest multiplier increases were obtained from deltoide Aubrieta species in two variations and the one treated with RADISTIM and the one that used NAPORIZ.

This fact shows better multiplication capacity of deltoide Aubrieta species, that form more quickly large bushes compared with species Arabis albida.
References

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