

THE FEATURES OF SEED REPRODUCTION SPECIES OF THE GENUS VIBURNUM L. IN THE FOREST- STEPPE OF UKRAINE

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Studies on reproduction are necessary in plant introduction. The success growing many species of woody plants from seed is largely determined by correct of selection of pre-preparation method. This issue is very important for species of the genus *Viburnum* L.

Investigation of features of seed reproduction viburnums are devoted of work Ivanova [6], Bozhkova [1], Zholobova [3], Zaborovsky [4], Plotnikova [13], Nikolaeva [10], Zvirhzd [5], Gurevich [2], Misnik [8], Borodina [14], Kisilevsky [7], Nesterovich [9]. It should be noted that most of the work relates to *viburnum opulus*.

Viburnum seed characteristic morphological of dormancy period, which greatly complicates the work of seed reproduction. Such seed even under favorable conditions for germination unable to germinate at all or has a reduced germination.

Some species of seeds calm so deep that under natural conditions germination starts in 1 - 2 years after seeding, seedling emergence extends over several years. According to Poptsov, the biological significance of organic seed dormancy is, to prevent germination periods in conditions that do not impede the process of germination, but the further development of seedlings through these or other reasons not ensured. [12].

In the work of L.S. Plotnikova [11] come across data that seed *V. wrighti* Miq. and *V. mongolicum* Pall., having a high percentage of viable seeds (80%) gave no young growth, which was caused by unfavorable before sowing preparation. In the literature we find conflicting information on how to methods of preparation before sowing of *viburnum*, some introduction species no data at all. The classic method is considered to be long (6 - 7 months) cold stratification [5, 8], however, for some species, this leads to the formation of so-called "dead sowing": seed sown in spring, giving plantlets only a year. Some authors recommend the freshly autumn

sowing seed [2, 3]. For M.H.Nikolayeva [10] the seed of most species viburnum inherent tranquility combined type: exogenous and morphophysiological deep epikotelny: the combination of underdevelopment of and strong bud physiological mechanism of A slowdown in developing epikotel, resulting in seed requires two-stage stratification: first heat stratification for germ maturation, seed germination and root development; then cold stratification to overcome dormancy and education epikotel escape. For some peculiar species of Viburnum different type of combined repose: exogenous and morphological (underdevelopment of germ). There are developments possible modifications viburnum opulus before sowing preparation [6, 7].

Thus, the issue of seed reproduction introduced viburnum finally resolved; recommendations different authors are controversial, because we have a series of experiments to improve the methods seed reproduction of viburnum.

The purpose of research - analysis of existing methods of seedbed preparation viburnum, their optimization and improvement.

Based on the studies it was found, that species of the genus Viburnum can be divided into two groups in terms of optimal seedbed preparation:

- 1) species that require two-stage variable temperature stratification;
- 2) species that require Single Stage stratification (cold and warm).

It was established that the species *Lentago* and *Opulus* sections belonging to the first group, and species the section *Lantana* - to the second. When using a long cold stratification were obtained strong performance of soil similarity (40,4 – 55,6 %), but in the year of sowing young growth were only the second group of species.

In applying freshly autumn sowing seeds in the spring of next year single staircase (5 - 17%) were the only *V.lantana*, *V.burejaeticum*, *V.rhytidophyllum*, *V.veitchii*, by 1 year - in *V.opulus* and *V.sargentii*. Other species do not germinate at all (*V.buddleifolium*, *V.prunifolium*, *V.rufidulum*). According to our data the best substrate for stratification viburnum is warmed annual sand. The data of some authors [7] on expediency of application peat our experiments were not confirmed.

Not recommended to apply filings in connection with the appearance in terms of wetting fungal diseases.

Species *Viburnum* genus can be divided into two groups in terms of optimal seedbed preparation: species that require two-stage variable temperature stratification; species that require single stage stratification. First developed preliminary recommendations for presowing preparation seeds of 17 species of *viburnum*, obtained by delectus.

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