Annex 21

Summary of the interim assessment report on novel methods of regulating alien species (goldenrods, knotweeds, common snowberry, *false spiraea*)

LIFE-IP project

LIFE IP ForEst&FarmLand/LIFE18IPE/EE/000007

Action C.4

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Summary

Action C.4 of the project LIFE-IP ForEst&FarmLand: Testing of novel eradication methods of invasive alien species in agriculture landscapes

The Environmental Board is testing novel methods of regulating four alien species - **goldenrods, knotweeds, common snowberry and false spiraea**.

Depending on the species, 2-3 different eradication methods are being tested: hot steam treatment, mowing, crushing in the first year and mowing new shoots, and in the case of knotweed, covering with geotextile and treating with herbicide.

For this purpose, there are 44 test areas and 16 control areas in four Estonian regions (West-Estonia, North- Estonia, East-Estonia and South-Estonia).

Timeline of the assessments:

- Preliminary assessment - 2022
- Interim assessment - 2024
- Final assessment - 2027

During the assessments, photos of the areas are taken and a questionnaire is filled out. Full interim assessment report is available in Estonian language upon request.

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Goldenrod

The methods of controlling the goldenrod are mowing and hot steam treatment.

No significant changes have been observed in the control areas in terms of the vitality, abundance, number of flowering individuals or the number of generative individuals of the alien species, nor have any differences been detected in the average height compared to 2022.

Mowing has had some effectiveness in controlling the alien species. Vitality has decreased (swarming and juvenile individuals), abundance in the colony has decreased to some extent, but density has not decreased significantly.

Hot steam treatment has been effective to some extent. Vitality of the alien species has decreased; abundance and average density have also decreased. Generative and flowering individuals are absent or only found in isolated cases.

Knotweeds

The methods for controlling the knotweeds are (1) hot steam treatment, (2) covering with a special geotextile, and (3) herbicide control (stems are cut off and the herbicide is injected into the stem cavities).

No significant changes in the height, density or vitality of the alien species have been observed in the control areas compared to 2022.

Hot steam treatment has been effective to some extent in controlling the alien species: the vitality has significantly decreased (the plants branch out and do not flower), but the average density in the colony and abundance have not changed significantly compared to 2022.

Covering with a special geotextile has effectively controlled the knotweeds. The abundance, vitality and density of the alien species have significantly decreased. There are only a few small or damaged specimens (growing through the tiles).

Herbicide treatment has been quite effective in controlling the alien species. The abundance, vitality and density have decreased. The distribution of knotweeds is sparse and the specimens found are damaged, small and sometimes have taken on the shape of surrounding species (for example, they resembled false bindweeds).

False spiraea

The methods of regulating false spiraea include (1) steam treatment, (2) crushing and then mowing of new shoots, and (3) mowing.

No significant changes have been observed in the control areas in terms of the average height, vitality or abundance of the alien species compared to 2022.

Mowing has had some effectiveness in controlling the alien species and the vitality of the species has decreased (scattering and juvenile specimens). Abundance has decreased to some extent, but density has not decreased significantly.

Steam treatment and crushing + mowing has been effective in controlling the alien species. The vitality, average density and abundance of common sedge have decreased, the specimens found were low and did not bloom.

Common snowberry

The eradication methods for common snowberry are (1) crushing and then mowing new shoots, (2) mowing, and (3) hot steam treatment.

No significant changes have been observed in the control areas in terms of vitality, abundance or average height of the alien species compared to 2022.

Crushing + mowing and mowing have had some effectiveness in controlling the alien species. The vitality of common snowberry has decreased (sprouting and juvenile specimens), the abundance has also decreased to some extent, but the density has not significantly decreased.

Hot steam treatment has generally suppressed common snowberry colonies (except in Kivijärve): plants sometimes occur as single specimens and are damaged, the density of the alien species is mostly sparse or very sparse.