



Seed legislation, regulations and heritage seeds. Case: Estonia



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1.0 Introduction

Seeds are of most importance in human life as we need seeds for growing food plants. During the last 60 years a decreasing amount of people are in charge for producing out food. There are less and less people living in rural areas due to the re-structuring of our agricultural sector. We have lost our farm plant diversity as the amount of small family farms had decreased and large industrial farms has been established. We have come to depend on a handful of commercial varieties as thousands of heirloom varieties have disappeared. It is hard to know exactly how many have been lost over the past century. Global transnational companies have started to patent seeds. Today four large companies (DuPont, Syngenta, Monsanto, BASF) owns more than 60% of our seeds. This is a major risk in the global food producing sector.

Climate change comes with several new challenges. Extreme weather conditions makes agricultural production even harder. There is a demand for seeds with a broad genetic profile in order to be able to grow them in a changening climate. Climate change is stronger close to the polar areas, i.e. in marginal agricultural areas such as the Nordic and Baltic countries. One way to combat climate change is to grow ecologically. Ecological agriculture is in a need for plants that manage to compete with weeds and pests. We need plants with higher stems, deeper root systems and different kinds of plants for mixed farming. It is not enough to plant 2 different plants at a pastures but we need 8 to 10 different plants to be mixed. Ecological farming needs genetically diverse sorts, such as old trade sorts, landraces, population and evaluation sorts. We do also see a decrease in the amount of pollinators. We need more habitats and food plants for pollinators as many farming crops such as rape, buckwheat, fruits and berries are totally dependent on wild pollinators. Our seeds should be open pollinated in order to start increasing the diversity of our food and fodder plants.

During the last years there has been made attempts to renew the legislation concerning breeding, selling, marketing and packaging of seeds. There are 16 different legislative acts regulating seeds in the European Union. Additionally there are national legislation on seeds. Plant health is also an important issue when we talk about seeds. Seeds have been produced and sold during millenia by farmers and gardeners. Today the seed market is heavily regulated. It has gone so far that seed saving and seed exchange has been labeled as a criminal activity. We need to decriminalise seed saving and seed exchange in order to increase the diversity of cultivated plants. We do also need to understand that there are a difference between non-commercial and commercial seed producers. There is also a huge difference if I sell seeds at a local market or if I sell seeds for export. All farmers should be allowed to develop own seeds, suitable for their own soils and geomorphological conditions.

This document contains information about the breeding, registration, marketing, packaging of seeds and seed plant health in Estonia.

2.0 Seed breeding in Estonia

Before 1920ies plant breeding was mainly done by estate owners in Estonia, of which many were Baltic-Geman landlords. Estonian farmers cultivated mainly landraces. Plant breeding began as an institution in Jõgeva in 1920 and is still carried out at the same geographical place as then. Today, Estonian Crop Research Institute researchers are breeding varieties of cereals, legumes, oil-crops, grasses, vegetables and potatoes. The main objectives of plant breeding and research are:

1. Ensure Estonian farmers with variety of selection from local crops and vegetables that meet the international quality standards.
2. The maintenance breeding and original seed production of Estonian varieties.
3. Curing plants from harmful plant diseases. Maintaining and multiplication a healthy and varietal identical plant material for plant breeding, seed production and scientific research.
4. Improvement of variety-based crops agrotechnology. Research of the effects of plant breeding and agrotechnologies on yield and yield quality.
5. Collection and distribution the information about crops and vegetables cultivation, quality and other fields.
6. Participation in international plant breeding research networks and projects. (ETKI, 2019)



Virumaa farmers visiting Friedrich Berg field trials in Sangaste in 1927. (Valga Muuseum)

3.0 Producing, selling, marketing and packaging of seeds

This chapter contains information about producing, selling, marketing and packaging of seeds.

3.1 Seed production and selling of seeds

The Organic Farming and Seed Department at the Agricultural Board is responsible for certification of seeds and official inspection of production, processing and marketing of seeds according to international rules, EU legislation and Plant Propagation and Plant Variety Rights Act. The department is also in charge of employing the control methods of wild oats according to Rural Development and Agricultural Market Regulation Act.

Main tasks of the Organic Farming and Seed Department are:

- Organising the certification of seeds
- Estimating of risks in seed subject field
- Resolving the problems of seeds control
- Organising and planning the official inspection of production, processing and marketing of seeds
- State supervision of the application of the measures for wild oats control

(Agricultural Research Center, 2019)

According to the Estonian Plant Propagation and Plant Variety Rights Act seeds that is marketed must be certified. There is a list of plant species that are listed as varieties. Marketing means, according to the law mentioned, selling seeds, owning seeds in attention to sell them, selling or giving in other ways seeds for free or against compensation to somebody else. It is not marketing if you give seeds in order to carry out field trials, among them for research and development work or for production if you by this not give the right to seeds to somebody else or yields got from it. (Agricultural Research Center, 2019)

According to the Estonian Plant Propagation and Plant Variety Rights Act § 2. *Variety and essentially derived variety*, there is not any other type of material than a variety. A variety means a plant grouping within a single botanical taxon of the lowest known rank which is defined by the expression of the characteristics resulting from a given genotype or combination of genotypes, is distinguished from other plant groupings by the expression of at least one of the said characteristics and is considered as a unit with regard to its suitability for being propagated unchanged.

A variety is deemed to be essentially derived from another variety by its phenological characteristics if it is predominantly derived from the initial variety or a variety that is itself predominantly derived from the initial variety, it is clearly distinguishable from the initial variety, and, except for the differences which result from the act of derivation, complies with the initial variety in the expression of the essential characteristics that result from the genotype or combination of genotypes of the initial variety. Essentially derived varieties may be obtained by

the selection of a mutant or a variant individual of the initial variety, by back-crossing, transformation by genetic engineering, somatic cloning, or other such method.

Seed means the seed of agricultural plants, including the seed of cereals, fodder crops, oil crops, fibre crops and beets, and the seed of vegetables which are used or intended for the production of seed for marketing purposes or propagating material, or for growing plants (Plant Propagation and Plant Variety Rights Act, § 3).

The Plant Propagation and Plant Variety Rights Act has a separate paragraph, § 6¹, for a variety intended for conservation of genetic resources. A variety intended for conservation of genetic resources means a variety, which has adapted to the circumstances prevailing in Estonia (hereinafter region of origin) and is at risk of loss over time due to human activity or environmental change, which will result in the loss of genetic diversity. In § 6² there are written about the preservation mixture intended for preservation of natural environment. A preservation mixture means a fodder plant seed mixture which is intended for preservation of the natural environment and conservation of genetic resources. In addition to fodder plant seed, a preservation mixture may also contain the seed of other plant species. A directly harvested preservation mixture means a seed mixture marketed as collected at the collection site, with or without cleaning. A crop-grown mixture is a seed mixture produced as follows:

1. seed of individual species is taken at the collection site;
2. the seed is multiplied outside the collection site as single species;
3. the seeds of those species are then mixed to create a mixture which is composed of those genera, species or subspecies which are typical for the habitat type of the collection site.

The seed law do not say anything about landraces, heterogenous populations, evolutionary populations or selections from heterogenous or evolutionary populations. The law do not say anything on whome should follow the law, i.e. not seeing any difference between non-commercial and commercial actors.

You have to pay seed registration costs if you want to get your seeds listed at the national seed list. To list a sort on the national sort list you have to do an application. It costs 25€. The annual fee (cereal, spring rape, potato) is for 1-10 years 30€ and from the 11th year up the subsequent years are 50€. The annual fee for other species, including silage maize is 25€. For any entry into the register you pay 10€.

To list the plant breeding rights costs 80€. The annual fee is for 1-10th year 65€ and from the 11th year it is 105€. For any entry to the register it costs 10€. A copy of the certificate costs 7€. For any request of any true copy of items of register you pay 2€. For a compulsory license you pay 64€. The state fee has to be transferred to the account of Ministry of Finance of the Republic of Estonia.

3.2 Marketing of seeds

Marketing of non-registered material is not permitted. Seeds of those species that are not on the EU plant list can be sold, for example swede and dill.

The Growing Seed Savers project enabled to start up the discussion between seed savers and the authorities on the difficulties in saving in-situ heritage seeds in Estonia. The development process has been the following during the project:

The first discussion on marketing of heritage seeds was kept at the Ministry of Rural Affairs the 5th May 2019. Annika Michelson and Annika Banner was representing the NGO Maadjas. There were several persons representing the Ministry of Rural Affairs, the Agricultural Board and also from Estonian Plant Research Institute - the gene bank. At this meeting we were quite long distance from each other concerning how the rules should be interpreted or changed. Heritage seeds were in general not familiar to the representatives of the authorities. At this point two different landraces had already been approved as conservation varieties, such landraces that came directly from a farmer and gardener.

The 29th of August 2019 NGO Maadjas was called to a meeting to discuss how seeds from the Estonian gene bank could be given to hobby growers. The meeting was kept at the Estonian Institute of Plant Research (ETKI) in Jõgeva. ETKI had worked out a hobby agreement draft which was presented and discussed together with the representatives of the authorities. Still at this meeting there was low understanding on why hobby gardeners would like to have gene bank materials. But this was a clear opening both to the hobby gardeners rights as well as on the topic of discussing values of heritage plants.

The 6th September 2019 NGO Maadjas arranged a seed legislation meeting named "How can we save heritage plants" at Estonian Open Air Museum. At the meeting there were several hobby gardeners, representatives from journals and newspapers as well as representatives from authorities. We opened up with a lecture on food culture with a researcher from the Estonian National Museum. After that NGO Maadjas proceeded by showing photos of heritage plants that our organisation has found in old peoples gardens. This was accompanied by the first ever arranged heritage plant exhibition. This exhibition got a lot of attention in media. A representative from the Agricultural Board told about common plant diseases. Most of them considered imported seeds, which NGO Maadjas seed saver organisation does not deal with. This shows that we have not yet fully made the authorities understand what we deal with. NGO Maadjas collect only seeds and seedlings of plants that have been cultivating a long time and adapted to Estonian climate. A representative from the Ministry of Rural Affairs told what does the Estonian seed legislation say on distributing and selling seeds. After this we got two very different, but supporting speeches by our Danish Seed Savers Frøsamlerne organisation and by our Latvian seed saver colleagues from Latvian Permaculture Organisation. Their approaches were different

and fulfilled our understanding of the ways in improving seed saving legislation in different countries. This was the first meeting where we felt that the Ministry had understood what is saving heritage seeds in our country and even if there still were different points of disagreement all could see what the problem was about.



A part of our heritage seeds and plant exhibition at the seed legislation workshop 6th August 2019 Photo. Annika Michelson

At 16 January 2020 the Ministry of Rural Affairs invited NGO Maadjas to a small round-board meeting where it was in details discussed how the situation on selling heritage seeds could be improved. At the same time there was the change on the so called Ecological farming 2021 regulation going on in the ministry and it was decided that we would make a comment on this proposal in the beginning of February 2020 concerning the need for selling small amounts of seeds among hobby growers and gardeners. We discussed if there was a need to mention heritage seeds at all. We looked particularly on the change that the Finns have been carried out in their new seed legislation. There was also a discussion on who may be opposing such a change and also what kind of impact this would have on the seed market in general.

We must here also emphasize that NGO Maadjas is a member of the commission on genetic resources of agricultural plants since 2014 and this has had a huge impact by making the discussion with the authorities and researchers in the field easier. Some employees of the Ministry of Rural Affairs and authorities were already familiar with heritage plants. The commission keeps meetings generally twice a year and these have also been occasions where we have met and NGO Maadjas has been able to tell about the discoveries that had been

done out in the field concerning heritage plants. Parallell with the Growing Seed Savers meetings our presence in the Commission helped a lot to reach a common understanding.

Maadjas

Maaeluministeerium

8. aprillil 2020. a.

Austatud härra Arvo Aller

Ettepanek seaduse „Mahepõllumajanduse seaduse ning taimede paljundamise ja sordikaitse seaduse muutmise seaduse“ (Dokumendi number: 20-0321/01) eelnõu kohta

MTÜ Maadjas palub täiendada taimede paljundamise ja sordikaitse seaduse osa ning viia sisse muudatus kehtiva seaduse paragrahv 1 lõikesse 2. Ettepaneku kohaselt ei kohaldata käesolevat seadust sellise seemne ning paljundus- ja kultiveerimismaterjali suhtes, mis on mitteprofessionaalsete tootjate poolt kasvatatud ja vähesel määral jaemüügi korras kohaliku turu kaudu lõpptarbijale turustamiseks ette nähtud.

Soome muutis selles osas oma seemneseadust samaaegselt heterogeense paljundusmaterjali turustamise lubamisega (Siemenlaki 600/2019, §12 (6)).

Kehtiva taimede paljundamise ja sordikaitse seaduse järgi on sellise taimse materjali, mis ei vasta sordi nõuetele ega ole sordilehte kantud, müügiks pakkumine, müügi eesmärgil omamine, müümine või muul viisil tasuta või tasu eest üle andmine keelatud.

Oleme olukorras kus pole võimalik vahetada, tasuta üle anda ega turustada paljude koduaedades kasvatatavate kultuurtaimede sorte. Enamasti on nendel taimedel pikk aedades kasvatamise ajalugu ja nad on oma omaduste poolest kasvatajate seas hinnatud. Neid nimetatakse põlisteks sortideks või pärandsortideks ja nende hulgas on nii rahvaselektisioonisorte kui ka omaaegseid kaubandussorte, mille seemneid enam ei toodeta ega müüda kauplustes. Tavaliselt ei ole selliste sortide suurtootmises kasvatamine tasuv, kuid nad on seotud meie toidukultuuriga ja neil on kindel koht eraaedades.

Seaduse muudatuse eesmärgiks on tagada suurema hulga hobiaednike parem juurdepääs taimsele paljundusmaterjalile, mida iseloomustab suur geneetiline mitmekesisus ja sellest tulenevalt suurem haiguskindlus, vastupidavus erinevatele ilmastikutingimustele, mitmekesisemad kulinaarsed ja dekoratiivsed omadused. Sellega tagatakse põllumajanduskultuuride geneetilise ressursi parem säilimine ja levik. Ühtlasi aitab seaduse muudatus kaasa meie kultuuri- ja toidupärandi säilimisele.

Lugupidamisega

Annika Michelson
MTÜ Maadjas juhatuse liige
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8th April 2020 NGO maadjas made a comment upon an ecological farming law concerning plant reproduction and sort protection (20-0321/01) in order to make changes on seed marketing.

We got later to know that our comment had not been passed and put into the legislation.

Autumn 2022 we got information about that it would be possible to sell genetic diverse seeds from 1.1.2023 in small quantities. This was a big surprise for us as we thought we had to start the work from the beginning again. By looking at the plant reproduction and sort protection law in the beginning of 2023 we did not see any changes (Taimede paljundamise ja sordikaitse

seadus <https://www.riigiteataja.ee/akt/TPSKS>) and asked for a meeting with workers at the ministry. This meeting was arranged 26th January 2023. We got to know the change was under work but had been delayed.

The work on making improvements in enabling heritage plant seed saving and seed legislation - especially on the right to marketing heritage seed has been an extremely hard and challenging work to carry out on a voluntary basis. Most of us started from zero information on the seed legislation and have during the process had to work through both the history of the seed legislation, but also on how it is implemented today in different countries. We are sure that this work had never been carried out by our small seed saving NGO alone and not without the project support we got from Growing Seed Savers project and supporting organisations in EU. We are especially thankful to the seed saver organisation Arche Noah in Austria and KYBELE Consultancy Fulya BATUR who time after another have educated us in understanding the seed legislation.

3.3 Packaging seeds

There are regulations and requirements on seed packaging. According to the General Part of the Economic Activities Code Act you have to register your enterprise that produce seeds. If you produce mixes of seeds for fodder then you have to register your economic activities at least 30 days before you start to produce fodder feeds mixes. (§ 72). In order to package seeds you need a licence to act. (§ 95). There are rules on how to apply for the right to package seeds. (§ 97) The applications for field, vegetables and garden cultures are handled by the Agricultural Research Center and the applications concerning packaging seeds of forest trees are handled by Environmental Agency.

3.4 Plant health

The plant health regulations are very strict in Estonia. Most of the plant health regulations are concerning imported seeds. NGO Maadjas do not work with imported seeds.

4.0 The Estonian seed saver movement NGO Maadjas

The Estonian seed saver movement started in the movement of searching for Estonian native animals, especially looking for Estonian native sheep. This took place in the period 2002-2006. In 2010 the Estonian native animal and seed saver organisation NGO Maadjas was established by seven private persons and three juridical organisations. The organisation is working both with native animal species and with native plant species. The organisation has a homepage www.maadjas.ee and a Facebook group with 3400 members <https://www.facebook.com/groups/362684808706/>. The organisation has only 15 members. Some of our members work only with native breeds and others only with plants.

There is a need for peoples' free movement of seeds. This can be seen by the huge amount of members that have joined "[Mis kasvas vanaema aias](#)" facebook group. People do want to exchange seeds and this is mainly done directly from one person to another and by selling in small scale at local markets. There are also arranged pot plant exchange events at several places in Estonia. People do also sell pre-cultivated plants locally in the spring. NGO Maadjas has not arranged any regular seed saving events, nor do we sell seeds. Seed exchange is carried out by our members mostly directly between members and their friends. People also get in contact with each other through the Facebook group.

NGO Maadjas has arranged educational events on native plants and these have been carried out geographically nearly in all regions of Estonia, for example at Karula National Park and Lahemaa National Park. Local museums have also showed an interest in preserving national plant resources. Good examples are Estonian Open-Air Museum, Mihkli Farm Museum at Saaremaa island and Muhu museum at Muhu island. Also Seto museum in South Estonia is interested in landraces.

There are several private collectors that collect specific plants, for example different flowers such as poenies, roses, phlox and clematis. These are not members of NGO Maadjas but some of them are used in our educational occasions.

5.0 Plant Genetic Resource Program

Estonia has established a National Programme „Collection and Conservation of Plant Genetic Resources for Food and Agriculture in 2014-2020”. This program is being evaluated by a commission set by the Ministry of Rural Affairs. The members of the commission are:

- Estonian Crop Research Institute (field crops),
- Estonian University of Life Sciences Polli Horticultural Research Centre (fruit trees and berries),
- University of Tartu Botanical Garden (ornamentals and herbs),
- Tallinn University of Technology Department of Chemistry and Biotechnology (genetics).

By Order of the Minister of Agriculture, the evaluation commission on collection and conservation of plant genetic resources for food and agriculture was established (Põllumajanduskultuuride geneetilise ressursi kogumise ja säilitamise hindamiskomisjon). NGO Maadjas is representing the Council of Estonian Environmental Nongovernmental Organisations in the Commission since 2014. According to the Plant Propagation and Plant Variety Rights Act, the varieties which are naturally adapted to Estonian conditions and in the long run are endangered by human intervention or environmental changes causing decrease in biodiversity are accepted as conservation varieties for inclusion in the Variety List. According to the Act § 28 (3), to decide on the inclusion of a conservation variety in the Variety List or on denial, an opinion of an authority administering conservation of plant genetic resources (Ministry of Rural Affairs) is needed. (Estonian Ministry of Rural Affairs. Programme, 2019) The opinion is given in the evaluation commission. The commission has usually two meetings annually. The

commission membership has been of high importance for NGO Maadjas, both in getting to know who is working with what in the sector and also in distributing information about seed saving and on-farm activities.

NGO Maadjas is the Estonian member of the On-farm Conservation and Management Working Group in European Cooperative Programme for Plant Genetic Resources (ECPGR), <http://www.ecpgr.cgiar.org/>. As a member we get information, news and can read proposals made. We are also eligible to start up a working group and get finances for that.

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