

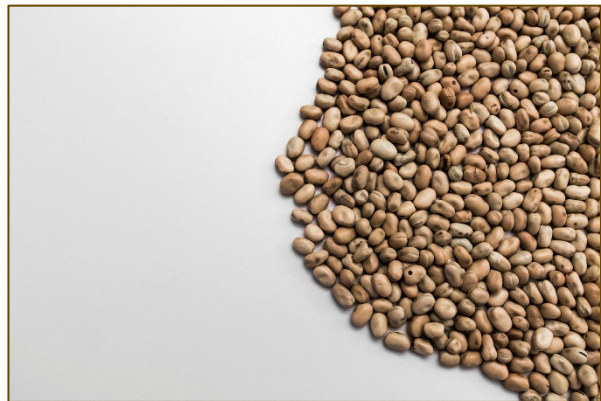
## Broadening the crop diversity in a region

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*Broadening the crop variety in a region can help deal with a changing climate and simultaneously create new business opportunities along the food chain. The locally produced crops can either partly replace import of a specific crop or be used to develop new and more sustainable food products based on local produce. By growing, for the region, new crops producers can better adapt to a changing climate and meet new consumer demands.*

### Introduction

Developing the farmland by introducing new and/or improved crops have been a constant process since humans started farming. Historically it has been a way to improve the food security and minimize the risk for starvation. This is still true today, but new perspectives have been added to the dialogue. Today creating a sustainable future (environmentally, economically and socially) is one of the big driving forces for change.



Two ways to meet these new perspectives is to introduce new (or for the region new) crops into the food chain or use existing crops in new ways. In Sweden both these approaches are being realized and tested in several different ways. There is for example a large focus on using field beans for human consumption to meet the increasing demand for vegetarian products. In one of the ongoing projects concerning this topic freshly harvested field beans are used to develop new food products with promising results. Furthermore, the interest in crops that can be grown in warmer and dryer climates (e.g. mustard and quinoa) are constantly increasing.

### Developing a new food chain

For new crops to reach the consumer a new, or partially new, food chain adapted to that specific crop needs to be developed. Developing a new food chain (from field to fork) usually presents several challenges even though the end products are already on the market in that country. Some of those challenges are:

- Adapting the culturing methods
- Building the necessary infrastructure for culturing and processing
- Finding ways to reach the market

Every region has different environmental conditions to adhere to, which means that culturing methods usually needs to be adapted to every new region where it is used. The adaption is usually done through growth tests where smaller quantities are grown. At Sötåsen Natural Resource school several new crops (e.g. mustard, quinoa, and lupine) are being grown in growing tests. The harvested crops are then tested out in the school kitchen.

Building the infrastructure for processing the harvested crops is one of the biggest challenges in Sweden. Even though existing infrastructure could potentially be used to process the new crops that is seldom possible, since the processing plants are adapted for large quantities and the crops to be introduced are usually grown in relatively small quantities. To take steps towards a solution for this challenge two of the Swedish partners have, as a part of the REFRAME project, investigated the possibilities for sorting and packaging smaller quantities of small seeds (e.g. quinoa and mustard seeds). As part of this investigation the group have visited several mills and traveled to the Netherlands to learn more about their solutions to these issues. Furthermore, an investigation focused on finding technical solutions for sorting and packaging has been carried out. The investigation has resulted in several possible solutions. The small seeds can for example be sorted at existing mills. The farmer can buy or build the necessary machines and sort the seeds at the farm. The plants adapted to sort planting seeds can be used to sort the harvested seeds. Another opportunity is to find actors interested in focusing their business on processing of these, for the region, new crops.

### **Next step**

The next step is to perform a thorough market analysis for the new crops and products to determine whether there are any actors interested in doing the pre-processing and what products the consumers are interested in purchasing.

### **Do you want to learn more?**

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