# Crop Rotation

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Associating plants in different periods of time is called Crop Rotation. This is an important practice for the soil, for it varies soil nutrition, promotes flora and fauna diversity, and the mobilization of nutrients and leaching elements, towards all layers in the pedosphere.

When we associate plants, we help them form alliances with others, improving the use of nutrients, protecting themselves from unwanted insects and organisms, and maintaining much better health. A healthy garden contains a good diversity of plants, we can be guided by the shapes, colors, flavors and smells to recognize it.

Let's start by understanding that each vegetable group has a particular consumption of resources.

Groups like legumes are naturally nitrogen fixators so they provide soil nutrition. Stems, leaves, flowers and fruits are heavy consumers as they need bigger amounts of minerals and prime materials to develop. Roots are structures that promote soil porosity and bulk stability, the intake for nutrients is low so these types of crops are considered to rest the soil.

# Consumer and Providers HEAVY CONSUMERS PROVIDERS: REST & POROSITY PROVIDERS: CARBON MATERIAL

Crop Rotation consists in planting areas of the ground using one group per area per cycle. This way once the cycle ends up, you can give the soil a correct change to promote its health. John Jeavons, (How to grow more vegetables, 1974), he proposed this cycle:

After a Cycle of Heavy Consumers it is important to re-nourish the soil to recover the nutrients. To recover them we can plant Nitrogen Fixators that will help recharge the soil nitrogen and increase microbiological diversity. After plant a cycle of Rest Crops to let the soil stay at rest before starting a new cycle for heavy consumers.

### **Heavy Consumers**

Almost all the plants that we consume frequently are in this category. We find vegetables of leaves, stems, flowers and fruits. They are hard consumers because they need many nutrients to grow and develop, mainly they use nitrogen to build their cells, tissues and photosynthetic machinery.

# **Rest Crops**

They are all root vegetables, helping to rest the ground in preparation for an upcoming cycle of hard consumers.

## **Nitrogen Fixation**

They are all plants of the family Fabaceae, trees, shrubs and perennial herbs or usually annual cycles. All plants of this family can be easily recognized by their fruit in the form of a sheath containing the seeds and commonly referred to as legume. Legumes are fundamental in the garden as they are able to provide nitrogen to the soil so that other plants can use it to form cells, tissues, proteins, nucleic acids, substances and energy to perform their functions.

### **Carbon Providers**

In addition to providing nutrients, cereals and corn are crops that can provide up to 60% of the carbon-rich materials required for composting and building our garden's soil. Cereals in particular are used during winter times as living fertilizer and are helping develop regenerative animal husbandry.