

SOYBEAN CULTURE NORD EAST OF ROMANIA

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SOYBEAN IMPORTANCE

*****The soybean (*Glycine max*) is one of the most important food plants of the world**, and seems to be growing in importance. It is an annual crop, fairly easy to grow, that produces more protein and oil per unit of land than almost any other crop.

***** It is a versatile food plant** that, used in its various forms, is capable of supplying most nutrients. It can substitute for meat and to some extent for milk.

*****It is a crop capable of reducing protein malnutrition.** In addition, soybeans are a source of high value animal feed. Nevertheless, the soybean is adapted primarily to the Temperate Zone. Each improved variety has an adaptation determined in large part by latitude.



Interest in the impact of agriculture on soil structure or changing soil species makeup has increased. Due to its major position as one of the more important crops, more research into soybean (*Glycine max* L. (Merr)) management can contribute to better understanding of its production. With respect to the importance of soybean production worldwide, its production must be evaluated from different perspectives including its symbiosis with soil microbes. Soybean is an important source of food, protein, and oil, and hence more research is essential to increase its yield under different conditions, including stress.

NORDAGROTEHNIK FARM




NORDAGROTEHNIK FARM

My farm is situated in the nord est side of Romania, closer to the border with Ukraine and since 2009.

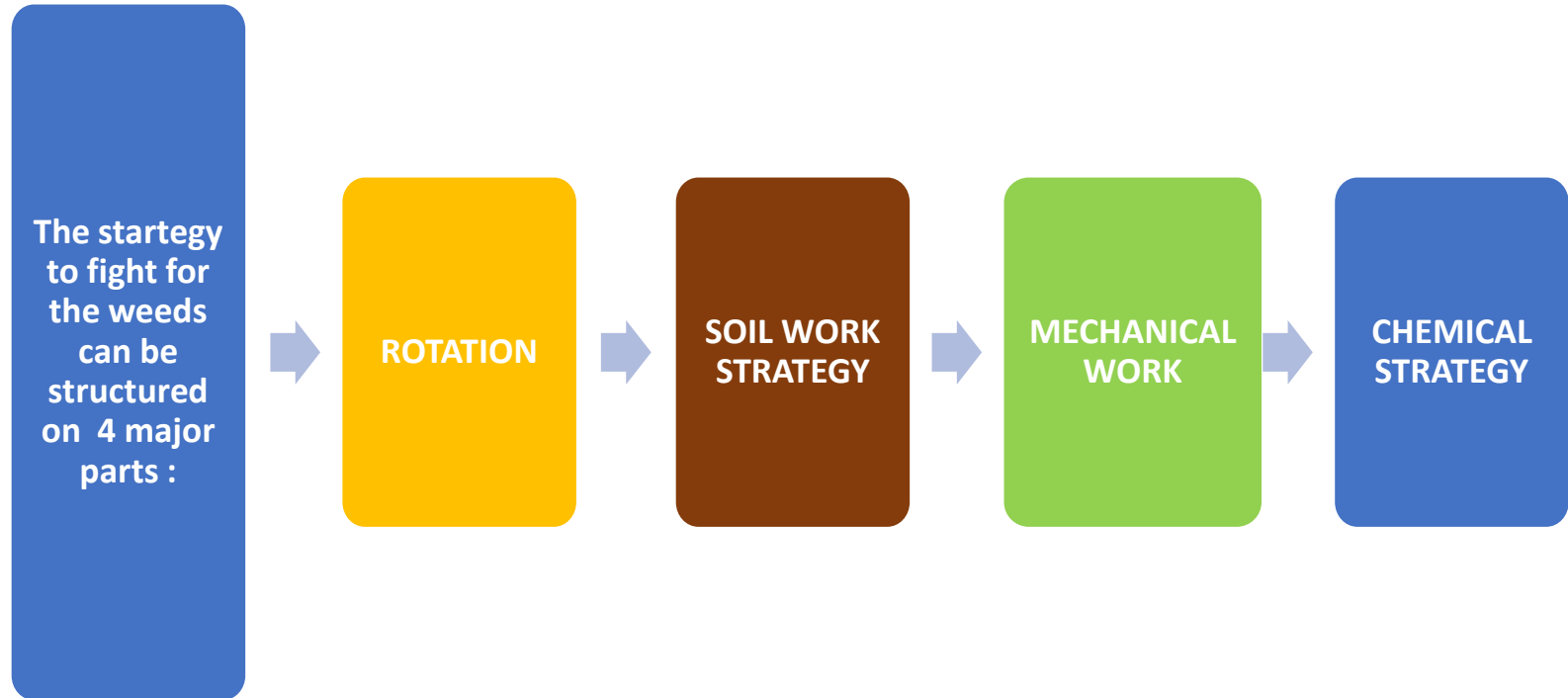
The farm have about 800 hectares

The usualy cultures are :

- * aprox 150 ha winter cereales**
- * aprox 200 ha wintrer rapseed**
- * aprox 100 ha sunflower**
- * aprox 150 ha corn**
- * aprox 200 ha soybean**



INTEGRATED WEED CONTROL STRATEGY



ROTATION OF CULTURES

- Rotating crops can help manage diseases, insects and weed pressure by removing potential hosts for a year or introducing different pesticides and microclimates based on the crop grown.
- Crop rotation increases the combination of different herbicides, different crop canopies and different tillage situations to provide better weed control. It also makes soybean rotations less likely for herbicide resistance. To maximize the yield potential, scout early and take steps to control weeds throughout the season.
- In my farm the soybean comes in the same fields after 3 years , and usually after cereals **(SOYBEAN – CORN – SUNFLOWER – CEREALS – SOYBEAN)**

SOIL WORK STRATEGY

- **WORKING SOIL IN THE AUTUMN TIME WITH THE GRUBER MACHINE**
- **WORKING SOIL DEPNES BEETWEN 22 UP TO 28 CM**
- **KEEPING WATER IN THE SOIL**
- **DIRECT DRILL IN THE SPRING TIME**



CONVENTIONAL SOYBEAN WEED CONTROL STRATEGY

WEED CONTROL	PREEMERGENCE	POSTEMERGENCE DYCOTILEDONS WEEDS	POSTEMERGENCE MONOCOTYLEDONOUS WEEDS
OPTION I	METRIBUZIN 700G/KG + S-METOLACLOR 960 G/L	TIFENSULFURON METIL 50%	PROPAQUIZAFOP 100G/L
OPTION II	METRIBUZIN 700G/KG	TIFENSULFURON METIL 50%	PROPAQUIZAFOP 100G/L
OPTION III	***	TIFENSULFURON METIL 50%	PROPAQUIZAFOP 100G/L
OPTION IV	METRIBUZIN 700G/KG + S-METOLACLOR 960 G/L	IMAZAMOX 40 G/L	PROPAQUIZAFOP 100G/L
OPTION V	METRIBUZIN 700G/L	IMAZAMOX 40 G/L	PROPAQUIZAFOP 100G/L
OPTION VI	***	IMAZAMOX 40 G/L	PROPAQUIZAFOP 100G/L

INSECT PEST MANAGEMENT IN SOYBEANS

Soybeans can be attacked by pests at any stage from seedlings to close to harvest, but are most attractive from flowering onwards. It is important to note that soybeans are very tolerant of insect damage at many stages of crop development, and that noticeable damage (particularly leaf damage) does not necessarily translate to yield loss.



MAJOR PESTS OF SOYBEANS

- **Helicoverpa armigera**

Helicoverpa can severely damage all crop stages and all plant parts of soybeans. Of the summer legumes, soybeans are the most attractive to helicoverpa during the vegetative stage and can even be damaged during the seedling stage

- **Loxostege sticticalis**

Loxostege can severely damage all crop stage and all plant parts of soybeans.

- **Vanessa cardui**

Vanessa can severely damage all crop stage and all plant parts of soybeans



WORKING SOIL IN THE AUTUMN TIME



SEEDING TIME 2018



TWO WEEKS LATE



FIVE WEEKS LATE



YESTERDAY....

