

20 years of the Rapeseed Production System (RPS) in Czech Republic – results of its crop management

Petr Baranyk¹, Andrej Fábry¹, Martin Volf² and Josef Škeřík²

¹Czech University of Agriculture, 165 21 Prague 6 – Suchbátka, Czech Republic,

baranyk@af.czu.cz

²Union of Oilseeds Growers and Processors, Jankovcova 18, 170 37 Praha 7

spzo.volf@cbox.cz, spzo.praha@iol.cz

ABSTRACT

Based on rapeseed production analyses in 1975-1981 in Czechoslovakia and after its comparison to dynamic production increase in Western Europe there was observed a perceptible retardation of rapeseed management in condition of former Czechoslovakia. A well-balanced crop production system called Rapeseed Production System (RPS) for actual environmental and economical conditions was established from the acquired knowledge at the Czech University of Agriculture in Prague and at the other research institutions. RPS has been realized even during the 10 years of socialist planned economy. After 1989 it operated over 10 years of transformation to market economy, but without subsidies used in the EU. RPS changed substantially amount and quality of rapeseed produced in Czech Republic, which approaches levels of the best European countries. An annual production reaches about 1 mil. t of seeds. Essential rules of this complex technology are realized on around 750 of Czech farms at present time, i.e. approximately 130,000 to 140,000 ha or 40% of rapeseed area, respectively. Main present attention is given to economical, agronomical and ecological aspects of rapeseed production in connection to expected EU-membership of Czech Republic. We export one third to one half of rapeseed produced. Therefore it is necessary to keep the Czech producers competitive with producers in other European countries. There is a need for a more flexible rapeseed crop management in case of increase climatic anomaly as a disaster floods, extreme periods of hot and dry or moisture and rainy weather.

Key words: oilseeds – production – system – Czech Republic – history

RESULTS

The winter oilseed rape production system (RPS) was established in 1983. Now, 20 years later, we can evaluate its existence and activities. What was the cause of the RPS establishment?

- stagnation of the rapeseed production, but also of the other oilseed crops in the 60's and 70's in the 20th century, got in conflict with effort to be self-sufficient in fat raw materials
- import of oilseed crops incl. seed cakes annually immoderately loaded the exchange economy
- growing and production of oilseed crops lagged behind in comparison with the west European producers. In several years, the ploughings in reached the amount of 20 - 57 % of the sowed areas.

What preceded the RPS? First of all, it was the systematic scientific research and also the consulting activity in the area of oilseed crops on the Department of crop production of the Czech University of Agriculture in Prague, which issued in acquisition of an important knowledge in the area of:

- physiology of vegetation and its development
- growing technologies
- reduced tillage
- biological control methods
- usage of CCC as a growth-regulator
- reviewing of cultivars in field-scale trials
- direct harvesting of the winter oilseed rape

Unsubstitutable factor for the establishment of RPS was the application of the foreign experience, e.g. KITE - The Sunflower Cropping System in Babolna (Hungary), etc. The main contribution was brought by the cooperation among domestic scientific workplaces. Besides many others, we have to praise the activities of Czech University of Agriculture, Research Institute for Oilseed Crops in Opava, Institute for Scientific System of Management, Central Institute for Supervising and Testing in Agriculture, Research Institute for Crop Production in Ruzyně, Research Institute for Agricultural Economy, Research Institute of Fat Industry, etc.

This, at that time unique and comprehensive, cooperation in solving of the winter oilseed rape cropping problems led to awareness of the need to establish a coordinated system - and the RPS was put into life. The establishment of RPS was decidedly influenced by the cooperation between the general management of Fat industry led by Ing. Urban and Department of crop production of the Czech University of Agriculture in Prague led by Prof. Fábry and the others.

The main activities and tasks in 1983 - 1990

- expansion of the winter oilseed rape growing areas
- increase of the oilseed rape yields
- increase of the yield stability among the particular years, regions and producers
- a change to a higher quality „0“ rape cultivar and subsequently to „00“ cultivars

For the realization of the previous tasks, RPS was composed as a system, which unites and combines the information and pieces of knowledge of the scientific part with the material arrangements of the processors and the experience of the leading producers. RPS made a bridge between the scientific approach and the real agricultural practice.

After the research and following support of the discovered results in plot trials and field-scale trials, the phase of „binding technologies“ formation followed. Those technologies were tested in best Czech agricultural enterprises and were gradually put into agricultural practice.

At the same time, the vertical cooperation among basic industry, purchasing companies and processing industry has started and preserves till today.

Nowadays, we can certify, that RPS fulfilled the overall vision (Fig. 1 and 2), the number of the winter oilseed rape growing areas increased and the producers (members of the RPS) achieves higher and more stable yields. A change to qualitatively better cultivars on the whole growing area was successfully finished in the year 1993.

In 1990, the RPS was adapted to new economical and political changes and was transformed into the Union of Oilseed Growers and Processors (UOGP). This union took the activities of RPS and expanded the interests in other oilseed crops such as mustard, sunflower and linseed.

Also the experimental activity was broadened and UOGP realizes experiments with cultivars, protection, fertilization, fungicides, plant regulators, plant stimulators, biological prepreparates and other agro technical components.

UOGP also focuses on the increase of awareness of those experiments among oilseed crops producers. It organizes the following actions:

- issues methodologies for the rape-, sunflower- and soya-cropping
- regular spring seminars for the producers in particular growing regions
- demonstrations of the cultivar experiments - so-called „field lectures“
- issues a periodical „Oilseeds´ Flowers“
- issues references for the choice of pesticides and cultivars
- solution of the important agricultural tasks and their putting into practice

Each year is rounded off by the evaluating seminar for all UOGP members. About 900 producers and scientific specialists participate in this seminar, and they also contribute to the seminar yearbook.

The year 2003 brought changes in the structure of UOGP. UOGP established UOGP Ltd. - this new company solves the need to cover all economical activities and raise capital for scientific functions of UOGP. It caused the reduction of members' outcomes towards the UOGP.

The importance of UOGP and UOGP Ltd. existence as an important consulting and scientific institution is expected to increase after joining the European Union. It seems to be clear that this step will bring many normative changes in a view of the quality of oilseed crops, in seed production and the widespread usage of all cultivars registered in EU. Also the problematic of grant policy, which influences the cropping of oilseed crops and includes grants for bio diesel will go through several changes. Solving of these new problems will be next phase of the UOGP existence.

