

THE COMPETITIVENESS OF AGRICULTURE – OUR COMMON BUSINESS

Economic and social background

Last year **there was a marked increase in food demand** which had been announced earlier. The resulting negative effects of the significant **price rise** in agriculture influence the population in a different way.

Search for **alternative resources** replacing the **petrol-based fuel** has been globally speeded up and the production and use of **oil crops** and **maize** may have important role in this sector. Obviously, the price increase goes together with higher market prices.

The **climate change** strategies accepted by both the UNO and the European Union (EU) mean new challenges for the agricultural production. Heavier infestations by warm demanding **pests** induce greater **risk of epidemics** in the wet seasons and the appearance of new pests may be expected in several crops together with the likely establishment of large **weed** populations.

With the improvement of life quality and the change of dietary habits and **healthy life habits**, the demand for greater selection of healthy foods, including fresh fruit and vegetables available all year round, has been increased globally and also in Hungary, and the processed commodities are widely required by the market.

The objectives of **agricultural strategy** stated in the project “New Hungary - a Rural Development Programme” mean important challenges due to the above requirements. In the free market trade, the unjustified decisions result in disadvantages which cannot be reversed.

Draft of the new plant protection regulation

The European Commission has submitted a new draft regulation concerning the authorization of plant protection products (PPPs) to the Council and the European Parliament (EP). In the frame of the new Community regulation having regard to the means of sustainable agriculture, the basic objective of the draft is to further **decrease** the **risks** imposed by the use of chemicals and to **unify the European pest management practice** by maintaining the competitiveness of European agriculture.

No one objects the necessity and importance of the basic objective. All stakeholders of agriculture are fully aware that all efforts have to be made for the sustainable agriculture.

In the first reading in October 2007 the EP discussed the draft regulation, but, though positive decisions were made with the transposition and debate of over 300 amendments, the proposals can not be accepted by the producers. Having analyzed them we have to conclude that the harmful impact of their introduction is not proportional to the advantages and they do not meet the **basic objective**.

The regulation which is **replacing the present directive** and is expected to enter into force from 2010 shall **bring several new elements into the plant protection practice**. The planned important amendments include:

- The regulation shall not be **transposed** into the national legislation but its literal observation is **compulsory** for all Member States (MSs) from the date of its entry into force.

- Authorization of **formulated products** shall also be uniform in addition to the **active substances**, even the **directions for use** within a region (zone) will be the same (regions are too large, the difference in hazards caused by pests may result in increased risks).

With the introduction of the planned **regional authorization** scheme the independence of MSs decreases and the national authorization shall disappear.

- The **conditions** for authorization shall be **stricter** with no consideration for the use situation.

The PPPs meeting the already extremely strict requirements for authorization **may also be withdrawn**, if safer products are placed on the market. This is **contradictory to the market competition**, results in **price rise** and can be greatly **objected from a biological point of view**.

The **producers** are mostly concerned by the **hazard-based** authorization system, which has not been used yet for products more widely applied than the PPPs. PPPs would be evaluated according to the „cut-off criteria”. This evaluation scheme is not accepted by experts of toxicity, it is considered as **scientifically outdated** and is not used either in **human** or in **animal medicine**. The evaluation scheme of the present risk-based legislation fit better in the present practice and **serves logically the safety of man and the environment**.

It should be mentioned that, till January 2008, authorization of some 50 % of the existing **active substances** were **withdrawn**. Substitution of the very toxic insecticide active substances raises several practical problems. Replacement of active substances of fungicides and herbicides that have been used for long has had to be solved.

The introduction of the new “hazard-based” **restriction** after 2010 shall concern another 60-85-94 % of the authorized PPPs.

To be objective, it should be mentioned that besides the exaggerating proposals of the EP, the **Commission** submitted his more moderated aspects for PPPs reduction and withdrawal of active substances: 8-20 % of insecticides, 12-34 % of fungicides and 10-23 % of herbicides. In the near future, the authorities shall deal with this proposal.

The **new bans of active substances** and stricter use restrictions planned by the EP would further reduce the producers’ management options and increase the **production risks**.

As far as the Hungarian production is concerned, the pest management of the so-called “Hungarian specialties” (the **Hungaricums**), **the minor crops** would face new problems. According to our present knowledge, the gap encountered in this field is difficult to replace in a both **economic** and efficient way.

Plant protection of minor crops has raised several problems due to the few authorized PPPs. As an emergency, the number of “black technologies” could increase in the new system, which, in turn, would raise the risk of **food safety** and economic efficiency. It is an important issue to prevent them.

Assessment of impacts for each PPP group and crop

The following table shows the possible PPP reduction in the major crops grown in Hungary:

Crops	Lost PPPs %		
	Insecticide	Fungicide	Herbicide
	Spray and seed-dressing		
Maize	69	(with seed-dressing) 83	9
Cereals	64	37	6

Oil crops	98	78	17
Pome-fruits	48	20	8
Grapes	74	53	57
Potatoes	70	38	17
Bulbs	90	37	21
Paprika	56	41	25
Tomato	62	32	17
Green peas	78	16	20

The most important reduction is expected in the number of insecticides, if the “cut-off” criteria will include **neurotoxicity** and **bee toxicity**. In the hazard-based authorization system **authorization may not be maintained for pyrethroids, organophosphates, carbamates**, but most **neonicotinoides** would also be lost. Several years’ experiences prove that some **pyrethroid** formulations can be **safely used in bee-safe management**.

Risk posed by **organophosphates** would also be balanced in the control of threats caused by scale insects and weevils.

Severe reduction would be expected also in **fungicides**: active substances of all **dithiocarbamates, triazoles** and some **strobilurins may be withdrawn**. They can be replaced with difficulty in minor crops and for **seed-dressing**, but if they are not available it may cause problem for fruit and grapevine production.

The new evaluation system would possibly less concern the **herbicides**, but we would lose formulations with **dinitroaniline** and **dinitroaniline** active substances and some **chloroacetanilide herbicides** for sure. Their loss would cause problems for the plant protection of field crops.

After the planned EU revision, based on our present knowledge, there would be no authorized PPPs for the production of **rape**. Management of **Western corn rootworm (*Diabrotica virgifera*)**, the number one enemy of **maize production** would remain also without any good solution. **In grapevine, apple and stone-fruits**, the control of scale insects and weevils seems to be doubtful.

In mostly field vegetables, withdrawals of PPPs may cause significant **yield losses**.

Analyses of the possible economic consequences

Hungarian specialists of crop production have made calculations and evaluated the increase in expenses caused by the loss of PPPs due to the planned hazard-based “cut-off” criteria in the major crops.

Crops	PPPs expenses HUF/ha		Increase in expenses (%)
	Traditional	After review of EU authorization	
Grape – grown in mountains	63 825	104 014	63
Grape from Alföld (lowland)	72 815	116 825	60
Apricot	43 164	57 648	34
	48 125	63 720	32

Raspberry	28 130	48 502	72
Peach	44 246	58 806	33
Apple from Szabolcs	148 465	201 345	36
Apple from Alföld (lowland)	129 895	198 560	53
Paprika – field	38 467	67 320	75
Cabbage - field	29 650	56 400	90

The expected increase in costs shall be 45-52 % and 36-48 % in wheat and maize, respectively, in terms of the use of PPPs.

Independent experts of other EU MSs drew **similar conclusions**. According to the data of Numisma institute, the yield losses caused by the planned withdrawal of PPPs, in the worst case, would be 29 % in wheat, 33 % in potato, and can be at least 10 % in grapevine. The European **farmers** would be the **losers** of the supply-demand competition. Of course, **the Hungarian farmers** would suffer similar or, in several fields, greater **disadvantages**.

The eventual decline of European agricultural production would result in the import of agricultural products from countries where the legislation is not so strong, therefore the main objective, i.e. **food safety** would be deteriorated.

The forecast published in the Newsletter of AgriService supports these statements: in the **USA** the areas of wheat, soy-bean and sunflower are growing and the area under genetically modified (GMO) crops is proportionally increasing. Strong farms determine the price competition. For the time being, the USA do not plan heavy restrictions for PPP authorization, as it is the case in the European Union.

In Latin-America, acceptance of GMO is increasing, the areas of maize and soy-bean are increasing and positive economic improvement is expected in most countries.

In Africa and the Middle-East, the improving market situation attracts the horticultural products to be exported.

In Asia, acceptance of GMO is increasing; though the rice area decreases in Japan, but significant increase of areas with cereal is being expected in China.

Therefore, the agriculture of the regions outside the EU is prepared to replace the decreasing European food production. Since the important and dynamically developing regions of the world do not plan to introduce restricting measures, they shall benefit important **advantages** in the **price competition**.

Summary of the consequences of the new hazard-based authorization with „cut off criteria” which negatively influence agriculture:

- The planned legislation **do not meet** the targeted principle, do not improve the **competitiveness** of the European agriculture, but it significantly **restricts** it. It means a **disadvantage** for the agriculture of all EU MSs, including Hungary.
- The implementation of development projected in the “New Hungary – a Rural Development Programme” is doubtful both in the **field production and the horticultural sector**, because of the set-back in **efficiency, economic** and biological disadvantages.
- The option of **PPP selection** meeting the farmers’ requirements of reasonable control and technical optimum is decreasing.
- New and unfavourable **plant health problems** cannot be foreseen: e.g. **measures for market restrictions** are expected because of possible heavy infestation by scale insects.

The strategy of **resistance** recommended for the producers cannot be implemented because of increased risk of development of resistance.

- The **PPP selection** may drop below the biologically necessary level, restricting the chance of **sustainable agriculture programme**, mostly the use of integrated pests management (IPM) and integrated production techniques.
- Data clearly suggest that **increase in price level and expenses** are expected.
- **Safe use of PPPs** may also be at risk. Over-usage of the few authorized PPPs and increased risk posed by the use of “black technologies” may have significant **adverse effect for food safety**.
- The one-sided PPP usage may induce negative effects for the environment.
- In addition to problems encountered in crop production, severe troubles may be caused in research, education, trainings and regulatory issues.
- Several “black spots” of application techniques may be created in the pest management practice which, together with unfavourable weather conditions, would cause yield losses, important quality deterioration and social problems for many producers.
- Hungary’s unique higher education in plant protection in the EU, together with the knowledge of 3000 university graduated plant protection experts and some 40.000 users with basic qualification in plant protection, shall not provide sufficient information concerning the plant protection problems to be faced in the near future.

What solution to find during the review of EU authorization?!

Consulting with the stakeholders widely involved in agricultural production and supplying the interested parties with analyses and economic evaluations, the Hungarian authorities, decision-makers and members of agricultural committees of both the EP and the Hungarian Parliament should **objectively study the impacts of proposals** by the Council and Parliament.

They should resist the emotional aspects which are surrounding the subject and are scientifically not well founded in certain cases and contradict the conclusions which mislead the public opinion.

Improvement of **ecological farming** should also be evaluated because it has to be accepted that organic production cannot replace the conventional techniques on short term.

The aim of the amendments of Community legislation may not be that we be exposed to resources and inputs in **food production** similarly to the **situation in energy**.

On the basis of the detected and described negative impacts, it is necessary **to publish the** interested farmers’ and stakeholders’ **opinions that they uniformly agreed in**, and we propose, by objecting the unfavourable changes, to work out a legislation which **shall not afflict** either the Hungarian or the Community **agriculture** to such an unjustified manner. Farmers of the Mediterranean countries and the neighbouring EU member states having similar characteristics shall be **partners for such co-operations**.