Selected trends forming European agriculture

Některé trendy formující evropské zemědělství

M. Svatoš

Czech University of Life Sciences, Prague Czech Republic

Abstract: The dynamics and forming of European agriculture are determined by many considerably heterogenous and complicated processes and trends which influence mutually and moreover they work in a different way in developed and developing countries. An attention will be paid to basic global trends, the role of the Common Agricultural Policy, the influence of agrarian markets, the promotion of multifunctional agriculture etc.

Key words: European agriculture, EU, global trends, CAP, agrarian markets, multifunctional agriculture

Abstrakt: Dynamika a formování evropského zemědělství jsou determinovány řadou značně různorodých a komplikovaných procesů a trendů, které se vzájemně ovlivňují a navíc působí odlišně ve vyspělých a rozvojových zemích. Pozornost bude věnována základním globálním trendům, roli společné zemědělské politiky, vlivu agrárních trhů, prosazování multifunkčního zemědělství aj.

Klíčová slova: evropské zemědělství, EU, globální trendy, SZP, agrární trhy, multifunkční zemědělství

The successful integration of Czech agriculture into European structures represents a considerably complicated dynamic process. It can be imagined as an extensive aggregate of the mutually connected and influencing linkages in the dimensions of agriculture, the countryside, the national economy, the EU and the global environment. The determining influence of the basic development tendencies on the change of the relevant conditions forming a corresponding economic, social, environmental and general social environment is manifested still more and more obviously.

The promotion of the European model of agriculture which stems from the fulfillment of economic, social and environmental aims can be in frame characterized with multifunctionality, competitiveness and sustainability. The influence of globalization processes, the New Economy and development tendencies in the world influence significantly development trends of agriculture in the world, integration groups or territories, the particular countries and regions. An essential base and starting point for the new development strategy of Czech agriculture and countryside is an appropriate attention to this development.

Formation of European agriculture and its dynamics is influenced by many heterogenous processes and trends. The attention will be paid to the connections of the basic global trends, to the determining role of the CAP, the influence of agrarian markets, enforcement of the multifunctional agriculture trend, the development of GMO technologies and other.

AIMS AND METHODOLOGY

The aim of the paper is to determinate and characterize certain significant trends influencing the dynamics and formation of European agriculture. The attention is focused on relevant trends and movements of global and European (integration) dimension.

The methodological approach stems from the description and the comparison from the factual, geographical and time points of view.

The contribution uses the results of solution of the research intention the FEM CULS in Prague – "Economics of resources of Czech agriculture and their efficient use in the frame multifunctional agrifood systems".

Supported by the Ministry of Education, Youth and Sports of the Czech Republic (Grant No. MSM 6046070906).

RESULTS AND DISCUSSION

An attention will be paid to basic global trends, to formation of the CAP, the European integration and GMO.

Basic global trends

Globalization as a multidimensional process is not only a driving power but at the same time it is a resultant force of many development trends. In this sense, the formation of sustainable dimension of globalization is fundamental from the view-point of world society, economy and ecology. This aim is very considerably connected with global trends.

In characterising the global structures and defining requirements for the need of global coordination, it is necessary to stem from multidimensionality and mutual connection of the globalization processes and trends. Besides other decisive spheres of global the trends and the connected requirements of sustainable development there is the area of world society, the world economy and the world ecology.

The world society

- *Growth of the number of the absolutely poor* – despite the fact that in most countries of the world social conditions improve. (The existing consensus and a strategy of the absolute poverty lowering are hindered by the missing willingness to mobilize the necessary resources).
- *Deepening of social disparities* in countries and among countries in consequence of the globalization processes. (Dominances of the neo-liberal pattern block a social creation of globalization in the society and among societies; the protection of property, and asymmetry of power – WTO, MAI etc.).
- *Continuing growth of the world population.* The highest growth of population in the poorest countries. The decrease in the dynamics of the growth of inhabitants in countries with the higher economic (life) level. (Investment in education, health service, and the aimed support of women increase the chances to reduce the growth rate population).
- *Strengthening of migration pressures from the areas of poverty* in consequence of wars, mass poverty and the destroyed environment. The main migration flows occur in the frame of the South and in a less rate from the South to the North, or from the East to the West. (The migration problem, i.e. also the safety problem has to be solved where it originates – by peace and development support).
- *Strengthening of women's rights* and improvement of the chances of *education*. Hither to there still is discrimination of women in the economy, the policy and the society. (The central role of women in the development process; global networks of woman organizations).
- *Development of ICT* – the decisive driving power of economic, political and cultural globalization with a high unused potential. A radical decrease in costs for ICT and at the same time high barriers of access. (A global institutional frame is missing; a transnational connection of NGOs).

The world economy

- *Growth of the involvement* of developing and transforming countries *in the world economy*. A smaller part of countries approach the level of the OECD countries while most of developing countries is not still globally competitive. (The substitution of the neo-liberal conceptions of 70´s and 80´s with the consensus in documents of the WB and the OECD on sustainable active economic and social policies as well as on the central role of state in advanced developing and transforming countries).
- *Long-term unemployment* in developed countries remains the main problem connected with the fall of demand for labour. (A key in the fight against unemployment at the national level – aimed qualification measures, adaptation of the educational and innovative systems to a new situation in the world economy, flexible labour markets, and sustainable systems of social security.)
- Destabilizing influence of the international financial markets on the world economy. Increase in the volume and volatility of global financial flows leads to a rise of monetary and financial crises in the developing and transforming countries. (Only political alliances with strong positions can enforce the control of speculation, creditors, monetary regimes etc. against lobbyism of world-wide mobile capital owners).
- *An acceleration of global concentration and monopolization processes – fusions* leads to creation of the supranational economic space and to the reduction of influence of the national economic policy. (World mobile enterprises are at a considerable advantage compared to the considerably immobile participants, i.e. workers, unions, governments).
- *The competition* and confrontation *among the large economic powers* in the polycentric world system *grow*. Multilateral regimes, e.g. the WTO, and the regional integration projects can get into discrepancy. (The key to stabilization and the institutional support of the world economy is an improvement of the transatlantic relations).

The world ecology

– *Increasing concentration of greenhouse gases* owing to the anthropogenic activity contributes to the climatic change. (The connection between climatic changes and the increase of greenhouse gas concentration has been formulated in the Convention on the Climate and the procedure of emission reduction has been set in the protocol in Kjótó; there is not a general consensus).
– *An intense reduction of the worldwide consumption of harmful substances damaging the ozone layer* by more than 85 % during two decades. (The success was based on the determination of the exact aims, the realization of time-schedules and the interaction of the developing and transforming countries supported by the transfer of resources).
– *The growing mobility* contributes significantly to the greenhouse effect. (This fact is insufficiently respected in the Convention on Climate as well as in the protocol from Kjótó).
– *Destroying of the environment* represents a growing factor for the violence conflicts. The biggest potential of these conflicts is at the local level. (An example of the first stimulus for solution of concrete problems at the international level is e.g. the Global Water Partnership – the document of the WB).
– *Growing number of global agreements* on environment is a result of the dynamic environmental policy. Since 1992, in these global agreements on environment always the new principle of "common but differentiated responsibility" has been included. (Realization of many agreements is disabled by the national egoism, economic interests and missing sanction mechanisms. Still more and more globally functioning NGOs as well as interested economic subjects act in the negotiation processes).

Among the significant tendencies in area of the world policy, there are more peaceful international relations (although there are many stability risks, e.g. the internalization of the internal conflicts, conflicts for resources, enlargement of terrorism etc.). Since the mid-60s, this trend has been accompanied by the increase of a number of intrastate conflicts which, though they are indicated as ethnical, represent a contest for power. The complexity of problems practically renders impossible the solution from outside. The demanded reduction of the world armament after the collaps of bipolar world has brought a lower "peace dividend" compared to expectation. An efficient control of the trade with weapons clashes with the interests of weapon exporters with all negative consequences for many developing countries. The legal institutionalization and the international protection of human rights gradually improve. The recognition of universality and indivisibility of human rights is in conflict with the sovereignty principle and it influences the tendency to oppose any interventions into the internal state affairs (non-legitimacy of the preference of "Islamic" or "Asian" values. However, under conditions of mass poverty, it is not possible to prevent subsidiary points of social, economic and cultural rights regarding the real possibilities).

Forming of the Common Agricultural Policy and the European integration

Change of the price trend – growth of food prices

The combined influence of several factors at present causes a change of the development trend of the food price index (in comparable prices) from a decrease to growth. Among these factors, can be included:
– *Increase of demand for fuels* from renewable resources of plant origin (bio-ethanol, bio-diesel etc.)
  – solution of the problem of a final reserve of non-renewable energy resources (the potential worldwide reserves of rock oil 1–2 trillion barrels, the present yearly consumption 30 billion barrels of rock oil) and the connected growth of prices.
  – solution of the problem of food overproduction in advanced countries with use of agricultural land for non-food needs
  – use of agricultural land for energy purposes in developing countries (often in conflict)
– *Increase of demand for food in developing countries*
  – high rate of economic growth in countries with the highest density of population (China, India etc.) stimulates growth of effective demand including the change of eating habits in the global rate
  – growth of the number of inhabitants in developing countries in inverse proportionality to the economic or life level creates a pressure on the growth of consumption and demand for food (including the form of food help)
– *Decrease of world reserves of cereals* to thirty-year minimum relates i.a. also to the significant dynamics of acreage of energy plants in the USA, the EU and therefore:
  – the influence of growth of the prices of rock oil and other non-renewable energy resources shows itself
  – a more significant increase of prices of food as a consequence of the increased demand and decreased supply can create especially in developing countries a strong inflation pressure, a growth

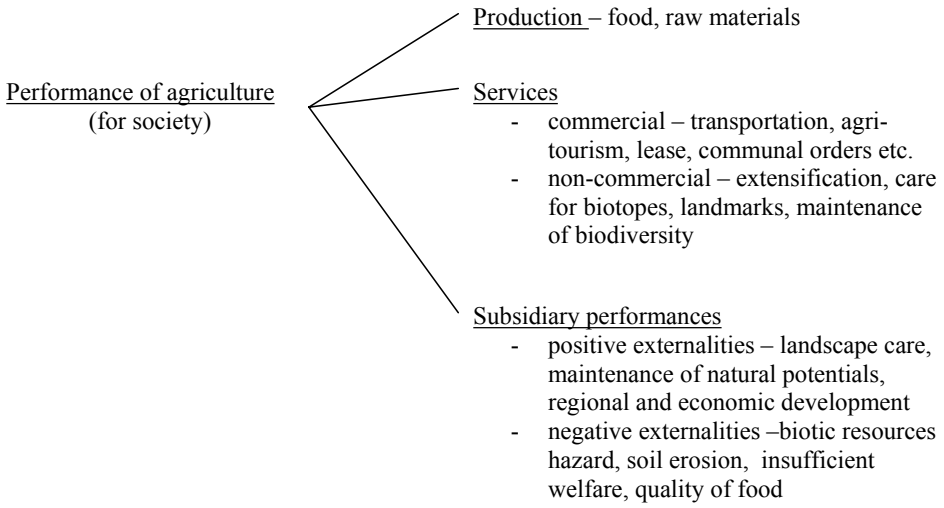

Figure 1. Characteristics of multifunctional agriculture

of interest rates and deceleration of economic growth
– solution of the problem of food and energy safety has in this case a common denominator – an optimal allocation of the limited production factor agricultural land from the commodity and territorial point of view.

European conception of multifunctional agriculture

In the frame of the world and the OECD, the opinions on the conception of multifunctional agriculture are not unified. In the European context, the concept of multifunctional agriculture represents a base of the European model of agriculture. Subsequently, the aims and measures of the Common Agricultural Policy and the starting positions for multilateral negotiation in the global measure (WTO, FAO etc.) issues from it.

From the mentioned structure of performances, it results that one (decreasing) part of the performance of agriculture is evaluated by market (production, commercial services) and in the second (growing) part (non-commercial services, subsidiary performances), the market failure is manifested. This fact can be interpreted quite unambiguously that agriculture represents one of the important areas where market does not lead to the optimal solution and where the problems of externalities, public goods, the uneven distribution of incomes, property etc. gain importance.

Agrarian sector and agrarian policy (Table 1, 2)

Agrarian sector can be understood as a part of the economic system and agrarian policy as a part of the politic system. Between both parts, there are very close mutual relations. Agrarian policy represents an extraordinarily comprehensive complex which is multilaterally connected with other areas of the economy and policy and which can be determined completely with great difficulties. Often it happens that the adopted agrarian policy measures do not concern only the agrarian sector but they have also desirable or undesirable effects on other branches.

Table 1. Agrarian supports of the selected (groups) countries (2002, methodology of the OECD)

Agrarian support (expression)	Unit	EU	USA	Australia	Japan
Subsidies rate (in % of market production)	%	36	18	4	59
Subsidies per 1 adjusted worker	1000 €	18	17	3	22
Subsidies per 1 ha of agricultural land	€	775	100	2	9 580

Source: European Commission, added calculations

Table 2. Characteristics of the size, structural and economics parameters of agricultural enterprises the EU-25 in 2004/2005

	Size of enterprise				Structure of business output (business output = 100%)				Economic characteristics						
	ESU[1]	agric. land	number of workers	profit	crop output	animal output	direct payment and other	profit	profit per labour unit	profit per ha of agric. land	number of ESU per ha of agric. land	number of ESU per labour unit	ha of agric. land per labour unit	share of leasehold land	share of unpaid labour
	ESU	ha	labour	thous. €	%				thous. € per labour		ESU/ha	ESU per labour	ha per labour	%	
EU-25[2)]	32.7	34.3	1.7	18.1	43	37	20	24.7	14.1	0.528	0.95	19.2	20.2	52.48	76.47
Belgium	89.8	40.4	1.9	45.3	34.4	54.7	10.9	24	28.2	1.122	2.22	47.3	21.3	74.01	78.95
Czech Republic	111.2	266.2	9.8	27.9	44.5	37.1	18.4	8.4	8.7	0.105	0.42	11.3	27.2	92.04	14.29
Denmark	97.7	69.9	1.5	6.8	24.7	58.4	16.9	3	17.6	0.097	1.40	65.1	46.6	28.47	60.00
Germany	88.5	72.3	2.1	28.9	30.9	43.6	25.5	15.6	20.3	0.400	1.22	42.1	34.4	69.99	66.67
Estonia	14.6	107.8	3	15.8	30.5	41.5	28	23.3	7.6	0.147	0.14	4.9	35.9	60.20	50.00
Greece	9.4	6.3	1.2	10.4	62.5	17.1	20.4	49.4	9.3	1.648	1.49	7.8	5.3	39.68	91.67
Spain	22.4	30.4	1.5	24.1	56.7	28.9	14.4	48.4	19.3	0.793	0.74	14.9	20.3	32.24	73.33
France	75.9	73.7	1.9	27.6	43.9	35	21.1	18.4	19.1	0.374	1.03	39.9	38.8	82.90	73.68
Ireland	22.5	41.6	1.2	17.6	8.4	58.3	33.3	33.1	16.4	0.424	0.54	18.8	34.7	18.51	91.67
Italy	25.4	16.8	1.4	24.6	57.9	27.5	14.6	39.3	21.2	1.462	1.51	18.1	12.0	37.50	78.57
Cyprus	11.5	7	1.3	3.0	46	40.5	13.5	11.7	4.4	0.426	1.64	8.8	5.4	67.14	76.92
Latvia	9.1	61.1	2.6	9.0	35.8	33.2	31	24.3	4.4	0.147	0.15	3.5	23.5	39.28	65.38
Lithuania	8.1	52	2.1	12.3	48.5	28.5	23	38.5	6.5	0.237	0.16	3.9	24.8	67.50	76.19
Luxembourg	60.8	74.1	1.7	39.9	16.8	45.9	37.3	21.5	26.0	0.538	0.82	35.8	43.6	50.47	88.24
Hungary	17.1	49.4	1.9	6.6	45.4	29.1	25.5	10.1	7.6	0.134	0.35	9.0	26.0	66.80	36.84
Netherlands	127.2	31.2	2.4	29.8	48	42.5	9.5	10.3	23.9	0.955	4.08	53.0	13.0	40.38	58.33
Austria	27.2	27.3	1.6	24.6	19.7	37.4	42.9	30.5	15.8	0.900	1.00	17.0	17.1	32.97	93.75
Poland	9.4	15.7	1.8	5.9	46.6	42.9	10.5	27.9	3.6	0.374	0.60	5.2	8.7	25.48	88.89

Conclusion Table 2

	Size of enterprise				Structure of business output (business output = 100%)				Economic characteristics						
	ESU[1]	agric. land	number of workers	profit	crop output	animal output	direct payment and other	profit	profit per labour unit	profit per ha of agric. land	number of ESU per ha of agric. land	number of ESU per labour unit	ha of agric. land per labour unit	share of leasehold land	share of unpaid labour
	ESU	ha	labour	thous. €	%				thous. € per labour		ESU/ ha	ESU per labour	ha per labour	%	
Portugal	10.8	17.6	1.5	6.4	46	31.1	22.9	28.6	5.7	0.366	0.61	7.2	11.7	33.52	80.00
Slovenia	7.3	12.7	2	6.5	17.7	40	42.3	27.5	3.5	0.510	0.57	3.7	6.4	33.86	95.00
Slovakia	125.1	550.9	20.7	59.7	33.9	26.9	39.2	11.6	6.0	0.108	0.23	6.0	26.6	96.50	5.31
Finland	36.3	46.5	1.5	20.9	21.2	35.1	43.7	20.1	16.3	0.449	0.78	24.2	31.0	33.98	86.67
Sweden	55.7	93.3	1.4	6.5	28.3	41.5	30.2	4.4	10.3	0.070	0.60	39.8	66.6	48.98	85.71
United Kingdom	109.8	148.7	2.3	29.9	34.6	42.9	22.5	13.3	23.1	0.201	0.74	47.7	64.7	41.02	56.52
X min – (country)	7.3 Sli	6.3 Gre	1.2 Gre	3.0 Cyp	8.4 Ire	17.1 Gre	9.5 Net	3 Den	3.5 Slo	0.070 Swe	0.14 Est	3.5 Lat	5.3 Gre	18.51 Ire	5.31 Slk
X max – (country)	127.2 Net	550.9 Slk	20.7 Slk	59.7 Slk	62.5 Gr	58.4 Den	43.7 Fin	49.4 Gre	28.2 Bel	1.648 Gre	4.08 Net	65.1 Den	66.6 Swe	96.50 Slk	95.00 Slo
X min in % (EU-25 = 100)	22.3	18.4	70.6	16.5	19.5	46.2	47.5	12.1	24.8	13.3	14.2	18.2	26.0	35.3	6.9
X max in % (EU-25 = 100)	389.0	1 606.1	1 217.6	329.6	145.3	157.8	218.5	200.0	199.5	312.2	427.6	338.6	330.3	183.9	124.2

[1]ESU – European Size Unit (EGE – 1200 €); [2]Data of Malta were not available

Source: Agrarpolitischer Bericht der Bundesregierung 2007. BMELV. Bonn

Also it holds that many measures realized outside the agrarian sector work indirectly or intentionally, in positive or negative direction, on fulfillment of the agri-political programs.

In the traditional theory of economic and agrarian policy agrarian politicy aims are regarded as politically given. Questions connected with the possibilities of forming the agrarian policy are really reduced to an analysis of the functional connections of aims and means. At this situation, the rational agrarian policy is in fact a used theory of allocation and distribution.

Within wider political-economic considerations, the agrarian policy is understood more complex. The subject of the considerations (and researches) is also process of creation of the the political will and decision making in the sphere of forming agrarian-political programs. Except the analysis of functional connections of aims and means, an attention is paid especially to the creation of the system and institutional frame as well as the process of creation of the political will and finding of the decisions.

European integration

Forming of the European integration represents a complex and complicated process which stems from the long-term strategic priorities, the medium-term financial and program plans and the solution of concrete problems of the short-term character.

If we consider the strategic development priorities of the EU as given, then it is obvious that the problem to be solved is the medium-term planning horizon (solution ofthe short-term problems stems from the medium-term frame).

Looking for a way of further direction of the European integration processes including forming of a new form of the CAP appears to be in contrast to the present contradictory positions regarding the depth, the form and the speed of changes in the process of European integration especially regarding the CAP problems, the structure of incomes and expenditures of the EU budget, the connections of the WTO etc.

It is essential to emphasize that these confrontation situations respecting the EU budget (the financial frame of the seven-year period, e.g. 1993–1999, 2000–2006, 2007–2013) have the recurrent character. In connection with it, also there are the changes in the structure of financing, and reforms of the Common Agrarian Policy. Then, the present situation represents the repetition of the previous ones, but in the strengthened form.

The base of the European integration (the starting point):
- the EU and the related integration processes are the perspective for the CR and Europe
- the process of the EU enlargement (the present and the future) has a strategic character – it is a presumption of the sustenance and increase of competitiveness in the dynamic-developing global environment
- the presumption of the functionality of the EU are the contributions for the old and new (future) EU members (the presumption of higher dynamics of development of the new member states)
- there is a certain relativization of the principle of solidarity regarding the fact that a disproportionate attention is paid to the EU financial-budget affairs (the yearly budget of the EU is c. 1% of GDP of the EU, i.e. roughly 100 bil. €, whereas in most member states government expenditures share in GDP is in the range 45–55% with a tendency to grow).

Budgetary aspect of the integration (EU)
- the base of every budget is the re-distribution
- the present development contributed to a gradual and desirable balancing of economic and life level of the less developed EC (EU) countries
- the increase of the common budget (EC) is connected with the realization and financing of the CAP (from the beginning 80–90%). The share of the CAP in the EU budget (EC) decreases gradually to the present 40–50% (according to the methodological procedure).
- funding of the CAP is apprehended mistakenly by the public and the state administrative as subsidization of the function of agriculture (production of commodity). In fact, it is still more the support of the growing non-production functions of agriculture which have the character of (positive) externalities and which represent the costs of market failure.
- the demanding theoretical and methodological task consists in articulation of the "associated agrarian subsidies" to a part representing a real subsidies of production function of agriculture and to a part which expresses "feeing" of positive externalities of agriculture whose task is raised by the European agricultural model.
- the existence of asymmetric markets in the food vertical and the misuse of the economic power of large supra-national participants in the national economic space represents in the final consequence subsidy and then also the use of budgetary means in favour of supranational corporations, not of the agricultural producers of the basic industry.

The irreplaceable position of agriculture in the socio-economic context:
- the human civilization is by its origin, existence (and therefore also extinction) connected with agriculture. Food consumption cannot be postponed; food consumers are all inhabitants; the multifunctional character of (European) agriculture enlarges the dimension of agriculture.
- some causes of the origin of the CAP (and set out aims) persist, others rise and new ones appear:
  - the evaluation of the strategic function of food, i.e. the experiences with insufficiency, and the measures consisting in the support of agriculture in worse natural conditions
  - respecting of different natural conditions and subsidiary measures taking into account different costs for agricultural production and the requirement of the uniform level of food prices and implicitly also the similar prices of labour, goods etc. in the EU.
  - overproduction or maintenance of the potential of agriculture of developed countries appears to be perspective and desirable in connection with the solution of the global problems of nutrition and population.
- the significance of security and safety of nutrition, i.e. also self-sufficiency in food production, grows in connection with the growth of the danger of terrorism and war conflicts (the threat to foreign trade). This affair will probably become dominant in the medium- or long-term perspective in the global scale (solution of food and development aid in relation to developing countries).

GMO – chances, risks

Problems of the GMO are discussed in Europe and the CR much more intensively and critically than in many other states of the world. Their repeated refusing has its base in the fears of the risks which can be connected with the GM methods. To the fore of interest, there are first of all ecological and health risks of consumers, the detriment of producers farming in a traditional way and obvious or camouflaged promotion of commercial interests of the supranational biotechnological corporations not observing the principle of preliminary caution and the resulting consequences.

Possibilities and chances:

Undoubtedly, the arguments of the supranational bio-technological corporations on big possibilities of the beneficial use of the GMO biotechnologies are significant:
- the growth of effectiveness of breeding procedures
- optimization of the traditional bio-technological procedures
- silvicultural procedures conserving the environment and resources (decreased consumption of pesticides, fertilizers)
- improvement of the ecological situation (waste liquidation)
- improvement of food quality
- solution of the starvation problem in developing countries
- increased possibilities of human genetics

It is essential to register the creation of atmosphere in the sense that the fast progress in the GMO area cannot be stopped. Often stressed in the fact that an excessive limitation or regulation presents the brake of competitiveness (of agriculture or technology). A minor contradiction is given by the uncompromising resistance of the bio-technological business against the GMO labeling, while the organic food labeling already exists here for a long time.

Problems and risks:

The level of risks increases with regard to the mass penetration of the GMO in many areas of the daily life:
- the mixture of genetic codes of plants, animals and people is connected with the unpredictable consequences
- the creation of new, other or unknown substances and uncontrolled spreading of changed genetic material (the danger of irreversible genetic contamination)
- a negative effect on ecosystems (biological diversity, impact on agriculture)
- the increase of allergies by the means of new or changed proteins
- the transfer of resistant genes
- from the ethical point of view, there can be the genetic discrimination and eugenics (the common use of genetic screening tests and prenatal diagnosis) which is incongruous with the moral values of the society
- immorality of patents on life organisms
- the use of untested technologies of genetic modification (without detailed and unambiguous tests) which are inherently risky from the view-point of health state and bio-diversity (exposition of the mankind to an unacceptable risk).

CONCLUSION

The present and especially the future development of European agriculture and countryside is still more significantly connected with forming of the global trends and the possibilities of solution of the global problems many of which are closely connected with the agrarian and rural space in the developed as well as developing world. However, it is essential to emphasize that the delimitation of global problems is given not only by their world-wide spread but also the necessity of co-operation and a common action practically of all countries of the world in their solution.

Except determining global influences, they are the basic global trends (European integration, the Common Agricultural Policy, the multifunctional agriculture etc.). The point of intersection of these trends and their influence becomes the determination of topics which have to be respected in the future – changes and growth of prices of agricultural commodities, the concept of the European multifunctional model, competitive and sustainable agriculture; the promotion of integration trends, heterogeneity of agrarian environment of the member states, irreplaceability of agriculture in the solution of the population and nutrition problem etc.

The concrete aims and tools of the Common Agricultural Policy in the medium-term frame have to be the result of the consensus of EU countries and at the same time they have to respect the above mentioned trends.

REFERENCES:

Agrarpolitischer Bericht der Bundesregierung (2007). BMELV, Bonn.

Svatoš M., Tvrdoň J. (2005): Charakteristika situace a některé náměty k formování cílů SZP (Characteristics of situation and some matters to form CAP aims). Study for MZe ČR. CULS, Prague.

Svatoš M. (2005): Ekosystémové předpoklady konkurenceschopnosti (české) ekonomiky a agrárního sektoru (Ecosystem presumptions of competitiveness of (Czech) economy and agrarian sector). In: Collection of papers from conference FEM MZLU, Brno.

Mae-Wan Ho (2000): Genetické inženýrství – naděje nebo hrozba (Genetic engineering – hope or threat). Alternativa, Prague.

Köhne M. (2003): Multifunktionalität honorieren, Agrarische Rundschau, No. 4.

Svatoš M. (2004): Globální souvislosti udržitelného rozvoje zemědělství (Global connections of sustainable development of agriculture). In: Collection of papers from international scientific conference AP XIII, Prague "Sustainable development of agrarian sector – challenges and risks"; ISBN 80-213-1190-8.

Arrived on 9th January 2008

Contact address:

Miroslav Svatoš, Czech University of Life Sciences, Kamýcká 129, 165 20 Prague 6-Suchdol, Czech Republic
e-mail: svatos@pef.czu.cz