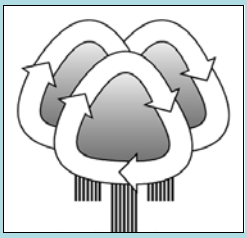
Pesticide Use in Hungary



Pesticide use, issues and how to promote sustainable agriculture in Hungary

PAN Germany is part of an international network of more than 600 citizens groups working to oppose the misuse of pesticides and to promote sustainable agriculture and ecologically sound pest management.

PAN Germany provides information on pesticide risks and campaigns for alternatives.

The Center for Environmental Studies Foundation (CES) is an independent non-profit think-tank serving as a catalytic institution for the environmentally sustainable restructuring and development of Hungary.

Fact Sheet 2004

Agriculture in Hungary

So far the country has not been able to transform the agriculture. After 1 ½ decades of political turn, the large-scale farms continue to dominate the structure. In the land use, the proportion of the commercialised small and medium size farms is only about 20 %. Following the slogan "large is beautiful" the government has provided substantial support for maintaining this anti-social, non-environmental friendly structure. During this period, 2/3 of agricultural employees lost their jobs. Most became unemployed having some land on which they are producing some products for their own consumption. Soil compression and soil degradation were speeding up during this time. More than 2/3 (72 %) of the large-scale farms have not at all dealt with animal husbandry. Characteristically, the grain production dominates the production patterns. Due to these circumstances, Hungarian agriculture is in a deep crisis at the beginning of 1990s.

Pesticide Use

Pesticide use in Hungary has been very low over the last decade, but it started to rise again. The accession of Hungary into the European Union will most likely intensify agriculture. There is much fear that the country returns to the industrial farming system with a high dependency on agrochemical usage with all their negative side effects. In order to meet the challenges of the EU accession, the capacities of national NGOs need to be raised about pesticide hazards and the current discussion and activities regarding pesticide policy in the EU.

Consequences of the industrialized large-scale farming

Otherwise, (in the 1970s and in the 1980s) Hungary was able to catch-up with developed countries in their agricultural farm practices. The step by step use of pesticides is increasingly reaching 7 kg active ingredients per hectare of agricultural area by 1989.
After the political turn, the pesticide use dropped just to 1.4 kg in 1995. After this low point the pesticide use stagnated for some years and then started to rise again. But in 2002, the quantity of active ingredients still did not reach 1.6 kg per hectare. This decline in the pesticide use was a consequence of economic transition accompanied by financial difficulties of the agricultural sector but not because of improved environmental awareness. This decline did not go on proportionally. The treated agricultural land areas decreased very sharply. The total land area treated with herbicide is 25 % while the total land area treated with insecticide and fungicide is only

9 - 10 % of the total agricultural lands (see Table 1). The farmers - mainly the state supported the large-scale ones - they were able to continue, had enough money and used almost as much pesticides per hectare as they did 15 years ago. If we divide the total quantity of active ingredients for the treated area, the pesticide use per hectare is above 6 kg. The rest of farmers used practically no pesticides at all. From the consumers' point of view this situation is not favourable as they cannot tell and differentiate whether the products they buy were treated with high levels of pesticides or not.

Table 1: Pesticides application according to land use categories in 2000

Land use categories	Area treated by							
	Herbicides		Insecticides		Fungicides		Other pesticides	
	Ha	%	Ha	%	Ha	%	Ha	%
Arable land	1 459 700	32	486 078	11	559 835	12	211 701	5
Orchard	9 856	10	14 240	15	14 678	15	5 389	6
Vineyard	5 499	6	6 333	7	7 042	8	3 125	3
Fishpond	9	0	-	-	-	-	10	0
Grassland	761	0.1	6	0	100	0	235	0
Others	4 414	4	4 952	5	226	0.2	462	0.4
Total	**1,480,239**	**25**	**511,609**	**9**	**581,881**	**10**	**220,922**	**4**

Source: Environmental statistical data of Hungary 2000, Hungarian Central Statistical Office, Budapest 2002, p. 162

Pesticide market in Hungary

Until the beginning of the 1990s, Hungary used to be one of the leading pesticide producers worldwide. It produced 60 out of the 200 most important pesticides. In 1998, the country still exported 28.800 tons of pesticides while only 7762 tons in 2002. About 10 companies produce pesticides for the domestic market and the export. Nevertheless, there are also several hundreds of companies importing pesticides, resulting in a total import of 18.654 tons in 1998 and 15.000 tons in 2002.

Hungary became a net importer of pesticides for the last decade. Share of home produced pesticide in money terms is less than 1/10 in the home sale. We have not researched that, but certainly the high price of mainly the imported pesticides also contributed to the low level of their use and to the high rate of illegal use.

Pesticide Authorization

Act No. 35 of 2000 on Plant Protection authorizes the Ministry of Agriculture and Regional Development for the licensing of the marketing and use of pesticides and on the packaging, storage and transport of pesticides. During the procedure, the Ministry obtains the official statement of the National Public Health Centre „ Fodor József" and the Ministry of Environment and Water Management. The National Public Health Centre „ Fodor József" and the Ministry of Environment and Water Management are involved in the evaluation process, but not in the authorization one. The points of view of human health and environmental protection are played down. Until 2004 the representatives of the NGOs have not been involved, except the Biokultúra Egyesület *(Association for Organic Culture)* who is asked regarding the chemicals that can be used in the organic farming. As a result of successful action of CES in 2004, an interministerial consultative body was set up, in which the environmental NGO movement can delegate a member.

Pesticide issues

Regarding Persistent Organic Pollutants (POPs), Hungary is one of the least polluted countries in Europe. Due to very serious water pollution of Lake Balaton in the middle of 1960' the most dangerous POPs (aldrin, dieldrin, DDT, endrin, chlordane and hexachloro-benzene) were banned in 1966 (mirex and heptachlor were never permitted in Hungary).

Forty years later, the Soil Conservation Information and Monitoring System carried out an analytical test. Pesticide residue samples had been taken from the upper three genetic horizons of 130 soil profiles. POPs residues were detectable in all three genetic horizons. The result of this analytical test shows that the POPs accumulate in the soil in spite of early ban.

Toxic not only for pests, but for humans
Pesticides can cause cancer, reproductive and developmental toxicity, endocrine disruption and cholinesterase inhibition to human bodies. Various international established criteria for the evaluation of the human toxicity exist.

A survey conducted showed that 180 of the ingredients registered in Hungary are classified by the European Union re: 25 as very toxic, 34 as toxic, 87 as harmful and 19 as irritant[1].

Pesticide residues in drinking water
Pesticide residues in surface and ground waters have been monitored regularly in Hungary since 1976 - in the framework of the National Environmental Health Program. In 2000, 64 sampling points along rivers, small creeks, and canals were selected from each main agricultural area.

From the 62 sample points, 21 pesticides were analysed. 8 pesticides were found and 8 cases exceeded the EU limits.

Pesticide residues in food
In 60% of the analysed home produced food, there were no measurable residues. Only in 1% were the residues above the Maximum Residue Limit (MRL) (Figure 1). In 12% of all cases non-authorized were detected (above and below MRL). A list of the use of non-permitted pesticides is very long. Most of the pesticides are authorized in Hungary, but not for agricultural crops. Also such pesticides were found, that were banned in Hungary. An example of a heavily sprayed vegetable is lettuce. Altogether, some 40% of the domestic samples contained pesticide residues.

Table 3: Pesticide residues in drinking water in Hungary in 2000

Name of active ingredient	Number of occurrence	Above the EU limit	Maximal concentration µg/l
Diazion	14	2	0.33
Forat	4	0	0.01
Antrazin	5	3	5.70
Prometrin	1	1	3.22
Terbutrin	1	0	0.05
2.4-D	4	1	0.27
Dichlorprop	3	0	0.07
MCPA	5	1	0.68

Number of water basis: 62, number of investigated active ingredients: 21

Source: Data provided by the Hungarian "Central Service for Plant and Soil Protection"

[1] Lars Neumeister (2003): Pesticides in CEEC's - Usage, Registration, Identification and Evaluation, Part 2: Hungary. PAN Germany, Hamburg

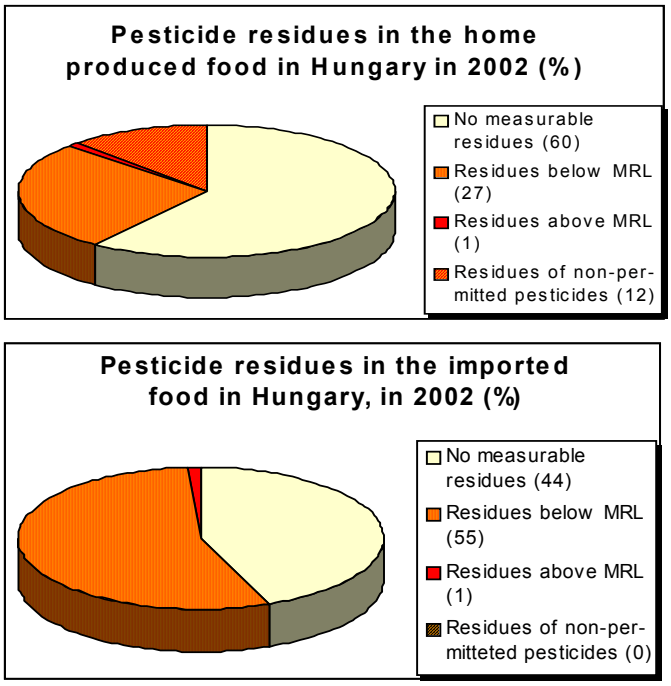


Figure 1: Pesticide residues in domestic and imported food, Hungaria 2002

Source: http://www.ontsz.hu/kep/letolt_172.pdf

Pesticide residues in the imported foods were higher than in the home produced foods (56%). As the imported foods are bought to a much higher degree in Budapest than in other parts of Hungary, the contamination of the persons living in Budapest is higher than in the rural areas of the country.

Towards Sustainable Agriculture

The Integrated Crop Management Scheme (ICMS) was introduced in Hungary in 2002, based on Government Resolution 2253/1999 Government decree on the introduction of the National agri-environment Programme. There is a substantially increased demand for safe and quality foodstuffs in Hungary - and in Europe as well. The ICMS is designed to encourage farmers to use integrated farming methods to produce according to higher environmental standards. In 2003, about 13.000 hectares (0.2 %) of agricultural area was used by ICMS.

The importance of organic farming has been increasingly appreciated in Hungary in recent years. In addition to the increasing importance of environmentally sensitive farming principles, increasing demand for organic products and new market opportunities justify the significance of organic farming. Only 10 % or less of organic products are purchased by the home consumers.

Table 4: Number of organic holdings and areas

Year	Number of holdings	Size of organic areas (ha)
1995	108	8 232
1996	127	11 397
1997	161	15 772
1998	330	21 565
1999	327	32 609
2000	471	47 221
2001	764	79 178
2002	995	103 672

Source: http://www.biokontroll.hu/eves/index.html

Main targets for NGOs' action

- Raise the pesticides related awareness and ensure greater transparency and consultation with public interest groups.
- Ensure NGO's participation in the evaluation and authorisation process.
- Promote the sustainable pesticide use with elimination of the obsolete pesticides and with reduction of the pesticide utilisation.
- Take action to address data gaps, combination effects, newly recognised effects like endocrine disrupting potential and immunotoxicity.
- Promoting apply of the Good Farming Practice (GFP) and Good Plant Protection Practice (including IPM).
- Promoting specific policies and support to bring 5% of all cultivated land under organic production (as defined by IFOAM) by the year 2005/2006.

National contacts and links

Responsible ministries and authorization bodies:

Ministry of Agriculture & Rural Development, Budapest
PO Box 1, Kossuth tér 11, H-1860, Hungary

Ministry of Environment and Water Management, Budapest, Fö utca 44-50, H-1011, Hungary, Hungary

"Fodor József" National Public Health Centre, Budapest, Nayvárad tér 2, H-1097, Hungary

Central Service for Plant and Soil Protection, Budapest, Budaörsi út 41-45, H-1118, Hungary

Hungarian Food Safety Office, Budapest, Miklós tér 1, H-1035, Hungary

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