

## Pesticide use, issues and how to promote sustainable agriculture in Bulgaria

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.

AGROLINK Association is a non-governmental, non profit organisation. Its mission is to promote sustainable agriculture to coordinate a national organic farmers' network, to support protection of the environment and the implementation of sustainable development principles.

**Fact Sheet  
2004**

### Bulgarian Agriculture

Bulgaria possesses good natural resources for agricultural development including one of the most fertile agricultural soils in Europe. Despite the apparent tendency to reduction of agricultural share in the economy from 1997, it remains the Gross Domestic Product in 2002 (1998 - 18.8%, 2000 - 13.9%), and employing 25% of the country's economically active population. According to various widely quoted official statistics, the country's agricultural land amounts to 6.2 to 6.4 million hectares, which is 48% of Bulgaria's total territory. However, this does not represent a potential maximum area because of the permanent abandonment of some of the more marginal areas of farm land. It is widely accepted, though not officially documented, that approximately 30% of the agricultural land is currently not farmed. About 69% of the total agricultural land is arable, 3% perennial crops and 28% grassland.

In the 1990's agriculture was transformed from an industry based upon huge agro-industrial complexes into a sector based upon private individual farmers, co-operatives and farming companies. Over 95% of all agricultural land is now in private ownership; however there is a huge division within the structure of the private farming sector. Almost 74% of the land is run by a small number of big private trade (1% of all) or cooperative entrepreneurs, mainly producers of grain or industrial crops. The average used

agricultural land (UAL) of the cooperative land is around 600 ha. At the same time the vast majority of farmers (99% of all) produce to meet their own needs.

Economy in rural areas bears the marks of heavy unemployment, low efficiency, a monosectoral structure and fragmented land ownership. This description is true of 81% of Bulgarian territory and 43% of Bulgaria's popula-



tion. The relative share of people employed in the agricultural sector is 10.7%.

Food expenses in the villages amount to 47.6% of peoples' income, while the expenses for education and leisure activities amount to 1.6%. Only 56.4% of the people in rural areas receive secondary education.

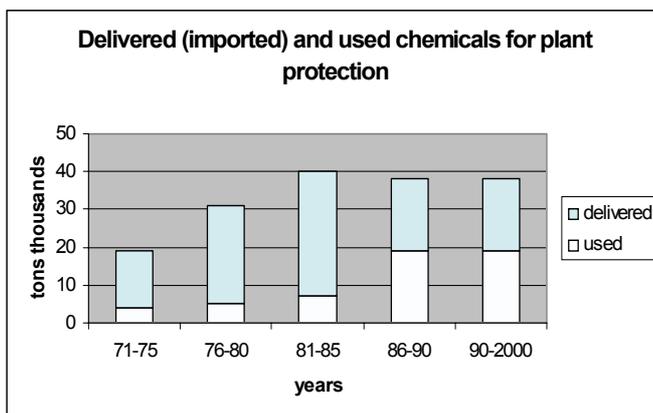
### Pesticide Use

Pesticides remain too expensive for most farmers to use under the current economic conditions. Where pesticides are still applied, they are often used inappropriately and are causing problems of resistance. For example, herbicides are still being used in the more intensive wheat growing areas –

but only the cheaper formulations containing 2,4-D and MCPA. Consequently, many perennial weeds (e.g. couch grass and corn-thistle) are unaffected and are an increasing problem, while other weeds are developing herbicide resistance (47% of wheat and barley crops in 2000 were affected by 2,4-D resistant weeds).

The transition from state-owned and co-operative to private ownership leads to serious problems of exercising control on the use of pesticides. A great number of new farmers and land tenants emerged with the restructuring of agriculture, who fail to observe the expiry dates of specific agents. Average pesticide use in Bulgaria is 3 to 10 kg active ingredient/ha/year and there is much interest in non-chemical methods, such as biological control. However, the management of pesticides is often very poor leading to localised water pollution problems from poor storage, over-application, inappropriate disposal or accidents by spray operators.

Despite the reduction in the use of pesticides since 1990, there is still a high risk of soil pollution where pesticides are being used by private farmers<sup>1)</sup>, particularly around pesticide storage places and the areas used for their mixing and preparation. There is no statistical data for pesticide active substances use.



Plant protection products are partially subsidized by the central budget. Every year, the MAF (Ministry of Agriculture and Forestry) in Bulgaria allocates loans for the purchase of chemicals and fertilizers. These funds amounted to 500 000 BGN (250 000 EUR) for 2001 and for 2002.

Of the licensed plant protection preparations, the total number of pesticide active ingredients authorized in Bulgaria is 193<sup>2)</sup>. 28 pesticide active ingredients are banned. Of pesticides targeted by the Stockholm Convention three are not forbidden – mirex, hexachlorbenzene and toxaphene. Figure 1 shows an overview of the authorisation process.

Statistical data on applied pesticides is rather controversial. The estimates for 1998 to 2003 were made with the assumption that the imported and domestic products sold on the Bulgarian market are almost equal to the applied products. While the National Service on Plant Protection reports a difference between delivered and used amounts in 1971 to 1985, there is no such difference in 1986 to 2000.

### Pesticide issues

Bulgaria still uses agricultural aircrafts to spray with pesticides and this causes serious problems with apiculture. Spraying is implemented mainly in the Northeast regions of Bulgaria with large areas amounting to thousands of hectares of monocultures of maize, sunflower and wheat. Signs of poisoned bees are registered every year. For example, in 2002 in the region of Silistra 700 bee families were poisoned and perished in only one spraying. In the region of Shabla and Kavarna (near the Black Sea) the beekeepers lost almost half of their bees after treating the crops with pesticides. The poisoning of 1.5 t of trout in the river Vycha was caused by improper storage of barrels with obsolete pesticides.

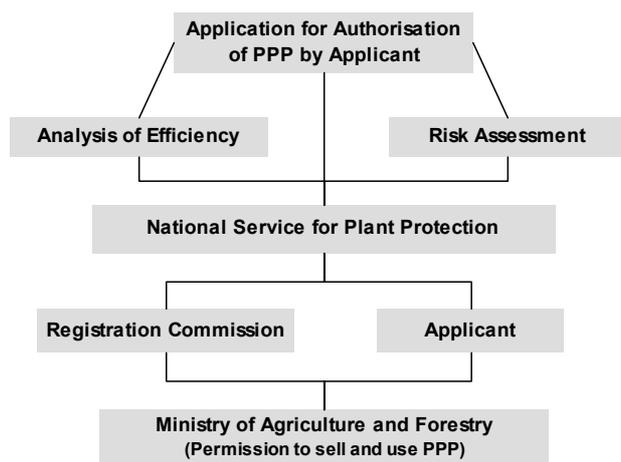
One of the problems is that old storage facilities and obsolete equipment continue to be used by private farmers and accidents are common. Some of these old storage facilities also contain obsolete and banned pesticides. These chemicals present a serious environmental and human health risk, especially with the additional dangers of fire and theft (there are many cases reported where outdated chemical preparations were removed from their original packaging and offered for sale).

<sup>1)</sup> Balinova, A. (1998). Environmental risk from point sources of pesticide in the soil. In: *Agricultural Science* 4, 51-54. Sofia.

<sup>2)</sup> National Plant Protection Service

The total number of storehouses for 2003 is 711 (69 of them as BB cube). The quantity of the stored wastes is 6,631t<sup>3)</sup>. In 2001 it was found that 35% of the stores are in bad condition and present a potential source for environmental pollution, in 2003 there were 412 non-protected storage places (57 % of all).

**Figure 2: Institutions involved in the authorisation process**



### Towards sustainable agriculture

Bulgarian agriculture is still functioning in an artificial domestic and international environment that suppresses natural Bulgarian advantages – heavy subsidizing of the agrarian sector in the EU, large numbers of Bulgarian farmers that fail to comply with stringent hygiene and food and animal safety EU Standards. The new EU model plans to redirect a part of agricultural support to rural regions' development. This strategy change should be taken into consideration as early as the stage of EU accession negotiations. A consensus is needed on what would make Bulgaria competitive in united Europe and on the way of applying the common agriculture policy on national and regional level. Public perception of Bulgaria's strong points includes small-scale, non-conventional and alternative productions and not large "industrialized" farms<sup>4)</sup>.

Integration of organic farming, sustainable tourism and local livelihoods is the most sustainable way for the development of rural areas and peo-

ple who live there. However, the signals sent by decision makers are different. The support under different financial programs is directed mainly to big producers and processors. The areas with genetically modified crops have increased and there is no official data for the used agricultural land. Bulgaria is one of the few countries in CEU where organic farming is not supported by the government.

2001 the Ministry of Agriculture adopted national legislation in the area of organic farming and later in 2003 accredited the first certifying body.

There is no national strategy for sustainable development and there is no National Organic Farming Action Plan. Some municipalities have developed their own Agenda 21 Plans and Strategies for Sustainable Development of Rural Areas, which are a good model for other municipalities.

### Main targets for NGOs' action

Only several organizations in Bulgaria work on the problems related to pesticides, mainly in connection with their work on sustainable farming. The project "National Profile Update Activities for National Chemicals Management" is financially supported by UNEP. The aim of the project is to strengthen and co-ordinate the national capacity for chemicals and pesticide management. Still, the potential for sustainable/organic farming in Bulgaria is huge and it could be realized through active participation of NGOs.

#### NGOs should:

- Work hard to increase the co-operation of all groups which dealing with sustainable farming – state, non-governmental organizations, private business, academic institutions and media.
- Strengthen organic movement in the country by training farmers and consumers and by raising awareness.
- Participate actively in the process of decision making, elaboration and adoption of National Action Plans; strengthen rules and enforcement of 'cross compliance' (environmental, health and welfare standards) to include restrictions on the use of harmful pesticides and all chemical inputs in food and farming

<sup>3)</sup> Executive Environment Agency

<sup>4)</sup> UNDP, National Human Development Report 2003 (2004) Rural Regions: Overcoming Development Disparities

- Work to change the way of thinking of all parties - farmers, consultancies and extension services, policy-makers, society.

In order to achieve these targets it is necessary to stir up the active participation of rural dwellers themselves, who should be aware that future success depends entirely on them. Civil initiative itself will shape government policies and the future of economy, culture and nature.

## National links

### Laws related to plant protection products issues:

- Plant Protection Law (State Journal No 91, 10 October 1997 amended by Acts of 15 October 1999 and of 09 November 2001 (State Journal No 90, 1999 and 96, 2001)
- Ordinance No1 of the Ministry of Agriculture and Forestry (MAF) of 27 May 1998 on Phytosanitary Control, (State Journal 82, 17 July 1998) amended by Acts of 19 October 1999 (91, 1999), of 22 January 2002 (State Journal 8, 2002)
- Ordinance No 11 of the MAF of 10 April 2001 on potato brown rot disease caused by *Ralstonia Solanacearum* (Smith) Yabuuchi et al., (State Journal 40, 20 April 2001) amended by Acts of 22 January 2002 (State Journal 8, 2002)
- Ordinance No19 of the MAF of 02 July 2001 on potato ring rot caused by *Clavibacter Michiganensis* (Smith) Davis et al., ssp. *sepedonicus* (Spieckermann et Kotthoff) Davis et al. of (State Journal 62, 13 July 2001) amended by Acts of 22 January 2002 (State Journal 8, 2002)
- Ordinance No 20 of the MAF of 02 July 2001 on potato wart disease caused *synchytrium endobioticum* (schilb.) of (State Journal 65, 24 July 2001) amended by Acts of 22 January 2002 (State Journal 8, 2002)
- Ordinance No 38 of the MAF of 08 November 2001 on fight against carnation leaf-rollers of (State Journal 98, 16 November 2001) amended by Acts of 22 January 2002 (State Journal 8, 2002)
- Ordinance No 39 of the MAF of 08 November 2001 on fight against potato cyst eelworms of (State Journal 99, 20 November 2001) amended by Acts of 22 January 2002 (State Journal 8, 2002)
- Ordinance of the MAF On Plant Protection Products Authorization Adopted by Council of Ministers Decree No. 213 of September 16, 2002. (State Journal No. 93 of October 1, 2002), in force from 01 January 2004.
- Ordinance No. 37 of the MAF of September 26, 2002 On Biological Testing for Efficiency and Residues of Plant Protection Products and Official Recognition of individual and legal bodies (State Journal No. 95 of October 10, 2002)
- Ordinance of the MAF on the conditions and the order for labelling of plant protection products. In force from 01 January 2004 (State Journal No 54 of 13 June 2003)
- Ordinance of the MAF for authorization of plant protection products on the market. In force from 01 January 2004 (State Journal No 93 of 01 October 2002, amended by the State Journal 31 December 2003, in force 01 January 2005).

### Responsible ministries and authorization bodies:

Ministry of Agriculture and Forestry; 55, Christo Botev blvd, 1040 Sofia, Phone: + 359 2 98 511 254

[www.mzgar.government.bg](http://www.mzgar.government.bg)

Ministry of Environment and Water; 67, Willam Gladstone str, 1000 Sofia, Phone + 359 2 940 6000

[www.moew.government.bg](http://www.moew.government.bg)

Ministry of Health; 39, Al. Stamboliyski blvd, 1000 Sofia, Phone: + 359 2 9811 830

[www.mh.government.bg](http://www.mh.government.bg)

National Service for Plant Protection; 17, Christo Botev blvd, 1606 Sofia; Phone: + 359 2 9533 379

[www.mzgar.government.bg/NacSlujbi/Nsrzk/Nsyrk.htm](http://www.mzgar.government.bg/NacSlujbi/Nsrzk/Nsyrk.htm)

Central Laboratory for pesticides, nitrates, heavy metals and fertilizer control; 120, Nikola Moushanov, 1330 Sofia, Phone: + 359 2 8229 159

Executive Environment agency; 136, Tzar Boris III blvd, 1618 Sofia P.B. 251, Phone: + 359 2 955 90 11

<http://nfp-bg.eionet.eu.int/ncsd>

### NGOs working on sustainable agriculture issues:

AGROLINK Association; 50, Yanko Sakazov blvd, 1504 Sofia, Phone: + 359 2 8466 675

[agrolink@bgnet.bg](mailto:agrolink@bgnet.bg), [www.agrolink.org](http://www.agrolink.org)

Bioselena Foundation; 47, Ivan Vazov str, 4300 Karlovo, Phone: + 359 335 92 038, [headoffice@bioselena.com](mailto:headoffice@bioselena.com)

Ecofarm Association; 125, Rodopy str, 4000 Plovdiv, Phone: + 359 2 989 2785, [skarov@au-plovdiv.bg](mailto:skarov@au-plovdiv.bg)

Organic Beekeepers Association:

Phone: + 359 888 358 650, [elbadd@internet-bg.net](mailto:elbadd@internet-bg.net)

Greener Bourgas Foundation; 24 Sheinovo str, 8000 Bourgas, Phone: + 359 56 842291, [greenbs@unacs.bg](mailto:greenbs@unacs.bg)

Centre for environmental information and education  
17 A, Sofroniy Vrachansky str, 1303 Sofia, Phone: + 359 2 989 2785, e-mail: [ceie@itera.net](mailto:ceie@itera.net)

Environmental Association "Za Zemjata"

Buzludzha Str. 55, fl. 2, Sofia PO Box 975, Phone: +359 2 851 86 20, [zemjata@iterra.net](mailto:zemjata@iterra.net); [zazemiata.org](http://zazemiata.org)

Ecoglasnost Movement; 9, Dondukov Blvd, 1000 Sofia, Phone: + 359 2 986 2221, [ekogl@bulnet.bg](mailto:ekogl@bulnet.bg)

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Principal Author: Svetla Nikolova (Agrolink)

Editor: Susanne Smolka (PAN Germany)

Pestizid Aktions-Netzwerk e.V. (PAN Germany)

Nernstweg 32, 22765 Hamburg, Germany

Phone: +49(0)40-399 19 10-0, Fax: +49(0)40-390 75 20

E-mail: [info@pan-germany.org](mailto:info@pan-germany.org), [www.pan-germany.org](http://www.pan-germany.org)

Association AGROLINK 50

Yanko Sakazov blvd 1504 Sofia, Bulgaria

Phone: + 359 2 8466 675, Phone/Fax: + 359 2 9431 511,

E-mail: [agrolink@bgnet.bg](mailto:agrolink@bgnet.bg)

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