

Obsolete pesticides and chemicals in Slovenia

Marta Ciraj¹, Branko Druzina²

¹ (Author) Ministry of Health, National Chemicals Bureau
Breg 14, Ljubljana 1000, Slovenia

Phone: +3861 478 6051, Fax: +3861 478 6266, Email: marta.ciraj@gov.si

² (Presented by) Health Protection Institute of the Republic of Slovenia
Trubarjeva 2, Ljubljana 1000, Slovenia

Phone: +386 12 313 276, Fax: +386 12 323 955, Email: branko.druzina@ivz-rs.si

Abstract

The term obsolete pesticides covers residues of and packaging for phytopharmaceutical agents (plant protection products) and biocides (agents for suppressing harmful organisms used outside agriculture). Old chemicals cover residues of and packaging for all other chemicals. In the past, unused residues of these agents accumulated for a variety of reasons. These residues could be a danger to people and the environment if they are not handled the right way. It is thus necessary to collect and destroy them in the appropriate manner. In Slovenia, after almost a decade of efforts to make systemic arrangements for this problem and to ensure the right method and the funding for disposal, a nationwide project is now being prepared to dispose of these residues within a specific period. At the same time appropriate measures for preventing further stockpiling are to be ensured. As many participants as possible will be involved in disposal, from state bodies to local communities. The participation of public institutes in the area of education will be very useful in making young people aware of the importance of the correct handling of old chemicals. At its session of 29 November 2000 the Slovenian government adopted a resolution allocating special priority to this area and instructing the ministries (the Ministry of the Environment and Spatial Planning, the Ministry of Agriculture, Forestry and Food and the Ministry of Health) to secure the appropriate financial resources for this purpose within their budgets. The ministries agreed to h(Aave the Chemicals Bureau to coordinate the project.

Keywords

Pesticides, chemicals, safe disposal

Introduction

In everyday life we use numerous chemicals that under the chemicals act are classified into one of the hazardous groups. At the Chemicals Bureau we have compiled the records for more than 10,000 of such chemicals to date. The inventory is not yet complete, and we expect more than 20,000 of such records to be there. Since Slovenia became independent, around 400 phytopharmaceutical agent preparations have been used in agriculture, while many more were used in the past. Around 500 biocides are used outside agriculture.

Both hazardous chemicals and pesticides (phytopharmaceutical agents and biocides) must be handled so that they present no threat to either our own health or the health of others, and do not harm the environment. The wastes must be handled in the same manner.

Waste pesticides and chemicals are generated as part of municipal wastes, and are released as such, although rarely in an organised manner.

There are various reasons for the accumulation of old stocks of phytopharmaceutical agents, some of which can be mentioned here. Phytopharmaceutical agents are also used by gardeners, thus widening the circle of users, but they do not have access to knowledge on the correct use of these agents, which can cause stockpiling of residues and packaging. Another common cause of stockpiling is the excess packaging. Also included among residues are the expired agents and that cannot therefore be used. Unused residues of dyes, lacquers, pipe cleaning agents and corrosive agents for cleaning stoves, old batteries, etc. all accumulate in households.

There are not yet systemic measures at the national level to regulate permanent collection, removal and destruction. With the odd exception, industry does not want to take residues or packaging back, and is not prepared to cover the costs of destroying them if such were to be organised. The entire system is insufficient and incomplete, as there is no way that elements in the chain can secure the financial resources to return pesticides and chemicals and dispose of them correctly.

If such residues are not stored correctly, for example if they are not in the original packaging or the packaging leaks, or if they are not kept out of the children reach or are inappropriately disposed of, they can present a threat to people and the environment.

Even though some stockpiles of old phytopharmaceutical agents have been disposed of through previous campaigns, there are about 40 to 50 tonnes of such materials, to which a collected quantity of approximately 20 tonnes must be added each year.

Given that other chemicals account for a much greater quantity of hazardous wastes than residues of phytopharmaceutical agents, based on data gathered to date, it can be stated that there was about 300 to 400 tonnes of such materials each year.

With an organised campaign to encourage the numerous citizens who have not yet forwarded their hazardous residues, we could expect an increase in this quantity by a further 300 to 400 tonnes.

The clean-up campaign would have to be finished in two years. The measures implemented in this time will prevent the further stockpiling of old material.

Raising awareness of the importance of disposal old pesticides and chemicals

Safe handling of residues and packaging for pesticides and chemicals is one of the priority tasks deriving from Agenda 21, which was adopted at the Environment Conference in Rio de Janeiro, and other world forums.

In Slovenia efforts for safe disposal of obsolete pesticides, which have had little success to date, began in the late eighties and early nineties, when the Ekolektor project was conceived and brought into existence by Tovarna Dušika Ruše and Pinus Rače pri Mariboru. During 1994, there was another attempt to address the financial conditions for carrying out the project described in Article 72 of the plant protection act. Until implementation of regulation covering the destruction of residues and packaging for phytopharmaceutical agents, funds gathered by then would be provided by the state from the budget in accordance with regulations issued by the Slovenian government. The National Assembly also charged the Slovenian government with this requirement during the first reading of the act during the adoption process. The regulations were not issued, as it was not possible to find a model for them in the EU regulations.

Subsequently, the Interdepartmental Commission on the Handling of Hazardous Substances (MKRNS), which operates as a governmental commission based at the Chemicals Bureau, became involved. During 1997, it organised a workshop within the framework of an experimental UN project run under the aegis of the United Nations Institute for Training and Research (UNITAR), which defined waste chemicals and waste pesticides as one of the priority tasks. During 1998, it also adopted a resolution that regarding waste chemicals, it was first necessary to address the problem of phytopharmaceutical agents, and that the funding was to be provided by the Ministry of the Environment and Spatial Planning and the Ministry of Agriculture, Forestry and Food (MAFF).

The first results of all these efforts were seen in 1999, when the MAFF first earmarked funds in its budget, within the framework of co-financing for promotion of agriculture in municipalities, for co-financing the organisation of the destruction of phytopharmaceutical agent residues. It thereby provided half of the necessary funding for this purpose on the basis of the work performed.

Given the efforts made the achievements were modest, as the political will necessary to tackling the situation was lacking.

Greater hope that matters would move more quickly was raised when priority policy tasks were defined for reason of Slovenia's integration into the OECD, when it was important for Slovenia to effectively realise the objectives set by national bodies in OECD members. Slovenia thus participated in the OECD/FAO/UNEP workshop on waste pesticides, held for OECD member states on 12 to 15 September 2000 in Alexandria, USA, and organised by the American Environmental Protection Agency, at the initiative of the Pesticides Working Group, which operates within the Chemicals Group at the OECD. The workshop was aimed at dealing with the problem of waste pesticides, i.e. unwanted and unused pesticides that are harmful to human health and the environment, and at seeking solutions at the international level.

At the workshop, it was concluded that governments have to be involved in the disposal of obsolete pesticides. They should take over the running of the project, involving all those with an interest and those affected in any way by the problem, and should also try to include resources from industry and other donors.

The disposal of obsolete pesticides and chemicals is also one of the important subjects for the Inter-Governmental Forum on Chemical Safety, which confirmed this issue as a priority task at its third meeting, in October 2000.

Based on that, the Slovenian government adopted a resolution on 29 November 2000 in which it designated the Chemicals Bureau at the Ministry of Health to be the body responsible for cooperation with the Inter-Governmental Forum on Chemical Safety and charged it with the task of coordinating work among the departments responsible for implementing the IFCS's action programme prepared by the interdepartmental commission pursuant to Article 56 of the chemicals act. At the same time, the Slovenian government is also giving special priority to areas in this action programme, including the disposal of obsolete pesticides and chemicals.

Because this programme has been supported by a governmental resolution and was coordinated at meetings with representatives from the Ministry of Health, the Ministry of the Environment and Spatial Planning and the Ministry of Agriculture, Forestry and Food. It can be hoped that this time there will be success in the project of disposing of old pesticides, which at the wishes of the Ministry of the Environment and Spatial Planning and in accordance with the IFCS guidelines also covers chemicals.

Disposal of obsolete pesticides and chemicals in Slovenia

A concerted campaign to eliminate obsolete pesticides and chemicals should dispose of stocks of hazardous wastes and packaging, and implement a method for carrying out services that will be made compulsory through regulations. The raising of public awareness through positive presentation should open up a path to the further regular disposal of such wastes in order to prevent the repeated creation of stockpiles. Not only would this be limited to hazardous municipal wastes, but specific funds would be used to help dispose of wastes from other holders (retailers, cooperatives) that are not classified as municipal wastes. It is therefore necessary to attract all those who hold stocks of such wastes, of whatever size, into the campaign.

On the local level, the basic and fundamental player is the municipality. It is also necessary to attract schools, NGOs, nursery schools, societies, shops registered for the sale of phytopharmaceutical agents and shops that sell chemicals entered in the register at the Chemicals Bureau, farmers, etc. into participating.

It is anticipated that before and during the campaign there will be targeted awareness-raising, the purpose of which will be to illustrate the concern of the government and local communities for the safe disposal of obsolete pesticides and chemicals. This should take place without scaring the public, but rather awakening a feeling of joint responsibility and a positive attitude to common objectives, and an awareness that each individual can contribute a great deal to a safer, cleaner environment.