

PESTICIDE LEGISLATION IN SENEGAL

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ABSTRACT: Some information and statistics are first of all given on pesticide production and marketing in Senegal, followed by a description of the laws aimed at promoting measures for preventing and controlling parasites and diseases that affect harvested crops, stored produce and livestock. (Decrees 6C-121 SG and 60-122 S-G, 10/3/1960). The regulations controlling the importation distribution and sale of pesticides are then outlined (Interministerial order 8322, 7/8/1973).

The present laws represent the first step taken by the Senegalese Government in drawing up pesticide legislation with special emphasis on the residues found in vegetables and fruit for export.

Finally, the author reviews the resources required (laboratories, etc.) for improved application of the new legislation and better supervision of pesticide use in Senegal.

INTRODUCTION: Senegal is basically an agricultural country where, until very recently, groundnuts were the main crop. Over the last few years, a considerable effort has been made to diversify agriculture and extend market garden and fruit crops. These crops are particularly prone to parasites, and to obtain high quality produce for export pesticides are virtually indispensable.

Senegal has therefore given special attention to the use of pesticides and the corresponding regulations so that the legislation is consistent with the laws in force in Europe where most of the Senegalese market garden crops are bought.

PRESENT STATE OF THE PESTICIDE MARKET: As groundnuts are still the predominant crop in Senegal, good or bad groundnut harvests have a considerable effect on pesticide imports.

The present trend is for pesticide imports to increase not in amount but in value, due to the fact that more and more pesticides are being formulated in Senegal.

In 1973, pesticide imports (active ingredients and formulated products) amounted to 1,500 metric tons, and a further 1,500 tons are estimated to have been formulated in the country. Consumption is expected to increase considerably with the extension of market garden, fruit and industrial crops (sugar cane, cotton, rice, etc.) which are grown with irrigation and are therefore unaffected by irregular rainfall.

The pesticide market in Senegal is expanding and as labour costs rise so the use of herbicides will develop, as in the developed countries.

PLANT PROTECTION REGULATIONS IN SENEGAL: The existing laws are only outlined here. For more details, the actual texts should be consulted.

Plant protection measures have been laid down in Senegal by two decrees (N° 60-121 S-G and N° 60-122 S-G, March 10, 1960) which makes it compulsory to control animal and plant parasites that attack crops in Senegal. These decrees form the basis of the Senegalese plant protection legislation.

Ministerial order N° 14 308 M.E.R. of 3/10/1966 makes it compulsory to protect stored food produce and seed.

PESTICIDE REGULATIONS IN SENEGAL: In 1963, as a result of a series of serious cases of poisoning caused by improper use of parathion formulations, the Government made an order banning the use of phosphoric ester insecticides. This was the first time that legislation on pesticides was promulgated in West Africa. The first relaxation to the order banning the sale of phosphoric ester insecticides dates from 1971 (Interministerial Order N° 10365 of 19/8/1971). This order authorized unrestricted sale of methyl-parathion and malathion and regulated the possession of ethyl-parathion.

In the same period, another Order (N° 4747 of 22/4/1971) laid down rules for the packaging and labelling of insecticides.

In 1973, new legislation was promulgated on the registration of agricultural and household pesticides marketed in Senegal (Interministerial Order 8322 of 7/8/1973) and Order N° 10365 of 19/8/1971, which banned the sale of phosphoric ester insecticides, was rescinded.

Pesticides are registered on the recommendation of the national Pesticide Committee. Pesticides proposed for registration by this committee are submitted to the Minister of Rural Development for approval (see diagram of the registration process).

In the registration process, there are four possible decisions:

- pesticide registered,
- pesticide registered but restricted to approved users,
- registration refused,
- provisional approval for testing purposes.

When a pesticide has been tested by the research bodies in Senegal, the results must be examined by the ISRA (Senegalese Institute of Agricultural Research) Pesticide Committee, which is to be set up in 1974.

Registration is granted for a maximum period of 5 years and can be renewed.

Any registration can, with 3 months' notice, be suspended or cancelled, and no compensation can be claimed. No period of notice will be granted however when registration is withdrawn for public health reasons.

The registered pesticides are divided into three groups according to their toxicity;

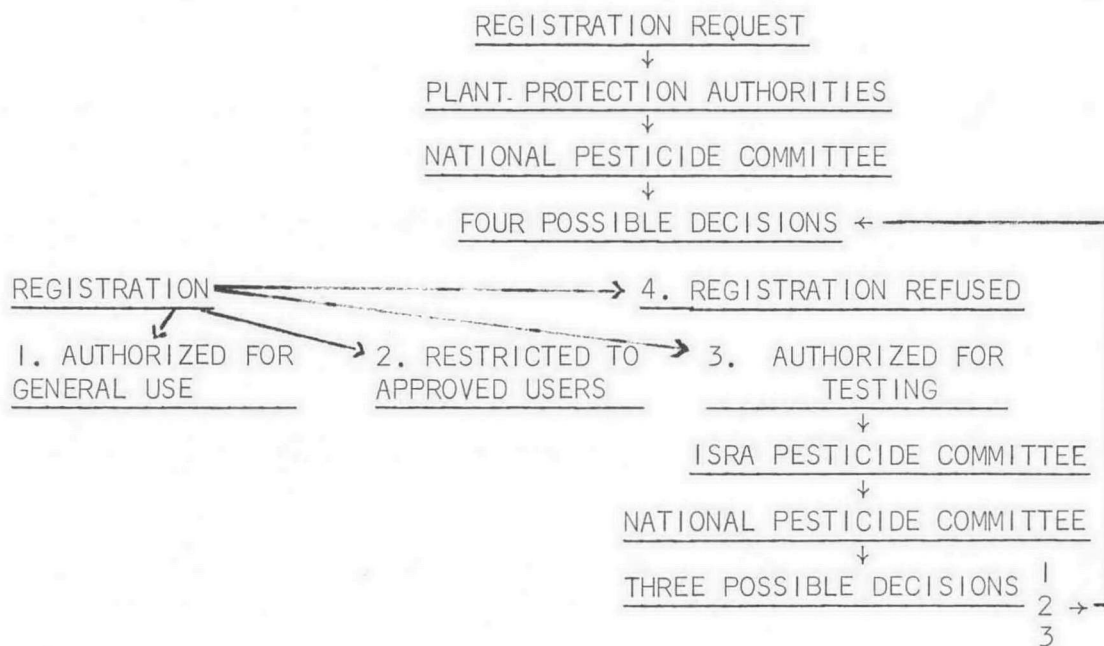
List A: this list contains as a rule:

- a) pesticides with a l.d. 50 (p.o. rat) of active

ingredient of less than 50 mg/kg.

b) pesticides which under normal conditions of use involve a risk of fatal poisoning, however it is absorbed in the body.

DIAGRAM OF THE PESTICIDE REGISTRATION PROCESS IN SENEGAL



List B: this list included pesticides that are less toxic than those in list A:

a) pesticides with a l.d. 50 (p.o. rat) of active ingredient higher than 50 mg/kg but less than 500 mg/kg.

b) pesticides which under normal conditions of use involve a serious risk of either acute or chronic poisoning, including allergy.

List C: this list includes the pesticides of lists A and B which are sold in such small amounts or in formulations with such small percentages of active ingredient that the risks involved are considerably reduced.

In May 1974, the number of registered active ingredients came to 134, in 403 different formulations. The active ingredients were divided into the following categories:

insecticides	47
fungicides	23
herbicides	36
rodenticides	5
fumigants	3
nematicides	3
various products	11
household products	6

According to the legislation, pesticides in list A can

only be made available to approved users on the list published in the Official Gazette, which is valid for a period of two years. The approved users may be individuals, commercial firms, institutes, etc., that have knowledge and practical experience of applying insecticides in open fields.

The percentages can be compared with those for Japan (see following table) which has had regulations on pesticides use since 1948:

Pesticide	Year		
	1960	1964	1968
1st category poisons (approximately list A)	17.6%	6.1%	1.7%
2nd category poisons (approximately list B)	32.1%	22.2%	9.1%
3rd category poisons (approximately list C)	10.9%	35.6%	39.9%
4th category poisons (approximately list C)	39.4%	36.1%	49.3%

Source: Rice farming and Plant Protection Problems in Japan. Pflanzenschutz-Nachrichten Bryer 23/1970,4.

In Japan, the number of very toxic pesticides is seen to have dropped continually from 1960 to 1968.

In Senegal, the percentages for 1974 are as follows:

List A - 24.5

List B - 18.1

List C - 57.4

Considerable efforts still need to be made to give pesticide users proper protection. Within three years, norms closer to those found in Japan should be reached, in so far as resources are available to set up a national pesticide service.

FUTURE PROSPECTS AND CONCLUSIONS: The present legislation only forms the first step towards more complete regulations, which must, in particular, cover the problem of the amounts of residues found on the crops.

This is particularly important for fruit and vegetables for export. In fact, the Common Market countries have drawn up common legislation on rates of residues and will very soon be carrying out analyses on the fruits and vegetables imported into Europe. Senegal will be particularly concerned by these measures, which explains why the use of organochlorine insecticides have been banned in market-gardening. A very substantial amount of trade is at stake, because by 1978 Senegal expects to be exporting 100,000 tons

of vegetables to Europe.

Legislation on pesticide residues is under consideration in Senegal and the maximum levels will be set according to the following factors:

- the toxicologically permissible residue limits will be set according to a method recommended by the FAC/WHO Joint Committee and will follow the tolerances proposed by the Codex Alimentarius Commission on pesticide residues;

- the residual levels resulting from correct agricultural practices that are particular to Senegal;

- the results of checks on produce for home consumption and for export.

For the last two points, it must be emphasized that Senegal does not at present have any laboratory for analyzing pesticide residues and is therefore forced to have analyses undertaken very sparingly abroad where they are expensive and only carried out in very limited numbers. A pesticide analysis laboratory is urgently needed in Senegal, since the use, rates and degradation of pesticides are different from in Europe. Without research results it will be very difficult for Senegal and the West African countries to use pesticides properly so as to meet crop production requirements within the limits for the protection of human and animal health.