NEWSLETTER Aberta

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Alberta Environment Regional Offices

Responsibilities for delivery of services (i.e. issuance of registrations, pesticide complaint investigations, and day-to-day program delivery) reside with the recently established regional offices of the Environmental Service of Alberta Environment. Questions on any of these topics should be directed to your nearest office below.

Prairie Region: Lethbridge ph. 403-381-5511 Bow Region: Calgary ph. 403-297-7602 Parkland Region: Red Deer ph. 403-340-7052 Northeast Boreal Region: Edmonton ph. 780-427-7617 Northeast Slopes Region: Edson ph. 780-723-8395 Northwest Boreal Region: Grande Prairie ph. 780-538-5460

Pesticide Regulation Amendments

Alberta Environment is finalizing some amendments to the Pesticide Sales, Handling, Use and Application Regulation (A.R. 24/97) and the Pesticide (Ministerial) Regulation (A.R. 43/97). Most amendments are intended to clarify current regulatory provisions (information was provided in the 1999 Pesticide Service/Vendor newsletters). When amendments have been signed into law they will be posted on the Queen's Printer website at: <u>http://www.gov.ab.ca/qp</u> The target date for regulatory changes to come into force is January 1, 2001.

Amendments to the Environmental Code of Practice For Pesticides

Alberta Environment is currently finalizing some amendments to the "Environmental Code of Practice For Pesticides". Most of the amendments are intended to clarify current requirements. Applications of pesticides near water will be the area of most significant changes. The Code currently allows the application of specified pesticides up to 5 metres from the bed and shore of an open body of water. Revisions will allow some pesticides to be applied up to one metre from the bed and shore (information was provided in the 1999 Pesticide Service/Vendor newsletters). The target date for new Code provisions to come into force is January 1, 2001.

New Active Ingredients For 1999

The Pest Management Regulatory Agency registered (for the first time) the following new technical active ingredients in Canada in 1999:

- Acetic Acid
- Bedoukian Trans-11-Tetradecenyl Acetate
- Citronellal
- Diflufenzopyr
- Fenhexamid
- Ferric Phosphate
- Isoxaflutole
- Kresoxim-methyl
- Mixture: Citronella Oil, Citrus Oil, Eucalyptus Oil, Pine Oil
- N-Cyclopropyl-N'-(1,1-Dimethylethyl)-6-(Methylthio)-1,3,5-Triazine-2,4-Diamine
- Oil of Black Pepper
- Oriental Fruit Moth Pheromone
- Peracetic Acid
- Piperine
- Sulfosulfuron
- Tebuconazole
- Trichoderma harzianum Rifai Strain KRL-AG2
- Triclopyr Triethylamine Salt
- Uniconazole-P

As previously mentioned, these are registered technical active ingredients. Most of these products have specialized uses and some of the end-use products that are likely to be registered at a later date may never be used in Prairie agriculture. It is important to realize that despite all of the news that surrounds the PMRA, they have registered on average at least one new active ingredient per month. In 1998, the number of new technical active ingredients registered was 24.

Carbofuran (Furadan)

In 1995 the federal Pest Management Regulatory Agency released a Decision Document which announced and explained the outcome of the special review for each of the uses of carbofuran. It is close to five years since this document has been released and applicators may not be aware of remaining registered uses. This article is to remind applicators of the remaining legal uses of carbofuran (Furadan 480 Flowable). These include:

- Potatoes for control of Colorado Potato Beetle; Potato Flea Beetle by ground application only;
- Corn (Sweet, Field*, Silage*) for control of European Corn Borer; Western and Northern Corn Rootworm adults by ground or aerial application (*Western Canada only);
- Green Peppers for control of European Corn Borer by ground application only (Ontario only);

- Sunflower for control of Sunflower Beetle by ground application only;
- Canola (rapeseed)/Mustard for control of Flea Beetle and Red Turnip Beetle by ground or aerial application;
- Raspberry (Field) for control of Bud or Root Weevil by ground application only (British Columbia only);
- Strawberries) for control of Root Weevil, Spittlebug, Strawberry Weevil (Blossom Clipper) and Tarnished Plant Bug by ground application only (British Columbia only);
- Sugarbeets for control of Sugarbeet Root Maggot by ground application only (Western Canada only).

The following uses are **no longer registered:**

- Cereals, Pastures, Headlands, and Roadsides for Grasshopper control;
- Wheat for control of Orange Wheat Blossom Midge;
- Alfalfa for the control of Alfalfa Weevil and Alfalfa Blotch Leafminer.

Applicators are cautioned to read and follow label directions carefully. The label contains numerous limitations and prohibitions. Contact your nearest Bayer Inc. representative for clarification of any of the remaining uses.

Aerial Registration for Matador

A supplemental label has just been granted to Zeneca Agro for the aerial application of Matador (cyhalothrin-lambda) to field crops. This includes potatoes, canola, mustard, sunflowers, flax, wheat, barley, oats, unimproved pasture and summerfallow. Contact your Zeneca representative for further details.

Silent Label Requirements – January 2000

This is a reminder to all applicators that effective January 1, 2000, all manufacturers were required to notify the Pest Management Regulatory Agency (PMRA) of their intentions to clarify "silent labels" with respect to aerial application. Labels that are silent (i.e. do not specify whether they can be applied by air or not, or do not indicate any prohibitions against aerial application) are now considered to be **not registered** for aerial application, unless they specifically indicate that they are registered. Applicators who wish to clarify the status of a product that previously was a "silent label" product should check with their nearest PMRA office in:

- Lethbridge ph. 403-382-4794
- Calgary ph. 403-292-4106
- Edmonton ph. 780-495-7014

Precipitation and Air Monitoring For Pesticides

In 1997, Alberta Environment undertook a pilot program looking at pesticide residues in rainfall in the Edmonton area. This was followed up in 1998 by further monitoring in Edmonton, and in a rural area east of Lacombe. Precipitation samples collected during May, June and July had frequent detections of pesticides (primarily phenoxy herbicides), at levels ranging from 0.005 ppb (detection level) up to 0.5 ppb. There was a distinction in products found in the urban setting, in relation to use (dicamba, mecoprop, and some domestic insecticides). Products such as 2,4-D, MCPA and bromoxynil were found regularly at both sites.

Agriculture Canada in Lethbridge also undertook a pilot precipitation sampling program in 1998, and received funding to expand their project for 1999 and 2000. They have been finding higher levels of 2,4-D in southern Alberta, where 2,4-D is more widely used in agriculture, while MCPA predominates in the samples collected further north. Overall loading estimates have been made, and some work on the impact of low levels of phenoxy herbicides in precipitation on sensitive crops is being undertaken in 2000. Alberta Environment and Agriculture Canada are also working together to define longterm monitoring program requirements and procedures after the 2000 data has been collected and analyzed.

Sampling of ambient air was also conducted in 1998 and 1999 by Alberta Environment, in conjunction with the Alberta Research Council. A different spectrum of products is found in ambient air, which is reflected in the high vapour pressure of these compounds. Compounds found in precipitation can be generally characterized as being of high water solubility.

The neutral herbicides (triallate, trifluralin, and ethalfluralin) are the compounds in wide use that were most frequently detected in air. This is not surprising, considering the high volatility of these compounds. These compounds were regularly found until snow covered the ground. Other products such as lindane, pentachlorophenol and hexachlorobenzene were also regularly detected in samples. Lindane detections started at seeding time (early to mid-May), and tapered off during the summer. Pentachlorophenol, a wood preservative, is widely found throughout Alberta, through all seasons. Hexachlorobenzene is an old insecticide, no longer used in Canada. The source of this compound is thought to be from outside of Canada.

Enforcement Actions By Alberta Environment For 98/99

A new report entitled, "Enforcement Activities – Annual Report April 1, 1998 – March 31, 1999" lists the enforcement activities of Alberta Environment for that period. Of the 122 charges concluded* under the Environmental Protection and Enhancement Act, 16 were pesticide-related and accounted for 13 per cent of the total charges concluded*. In addition, seven administrative penalties for pesticide violations were assessed, accounting for 20 per cent of the total administrative penalties assessed. Numbers of actions taken under the *Environmental Protection and Enhancement Act* included:

•	Administrative Penalties	34
•	Enforcement Orders	1
•	Enforcement Orders for Waste	2
•	Environmental Protection Orders	1
•	Tickets	7
•	Warnings	37
•	Charges Laid	47
•	Charges Concluded*	128

Total Fines/Penalties Assessed:	Administrative Penalties	\$165,250.00
	Tickets	850.00
	Prosecutions	\$1,191,500.00
	Total	\$1,357,555.00

For complete details, refer to the website at http://www.gov.ab.ca/env/protenf/publications/EnforceAnnualReport.pdf

*Charges concluded – includes charges that resulted in a conviction, and charges withdrawn, stayed, dismissed or resulted in an appeal.

Internet Sites of Interest

There are numerous sites concerning pesticides and pest control that Pesticide Management Program staff have explored that may be of interest to you in your daily work. A few of them are listed below. (Note: inclusion of any of the following websites does not indicate any type of endorsement by Alberta Environment. Website addresses were correct at the time of printing).

- Canadian Pest Management Regulatory Agency <u>http://www.hc-sc.gc.ca/pmra-arla/</u>
- U.S. Environmental Protection Agency, Office of Pesticide Programs http://www.epa.gov/pesticides/
- Alberta Environment, Pesticide Management Program Home Page <u>http://www.gov.ab.ca/env/protenf/pesticide/index.html</u>
- Alberta Agriculture, Food & Rural Development (Ropin' The Web) http://www.agric.gov.ab.ca/
- California Environmental Protection Agency, Department of Pesticide Regulation http://www.cdpr.ca.gov/index.htm
- United Kingdom, Pesticides Safety Directorate http://www.maff.gov.uk/aboutmaf/agency/psd/psdhome.htm
- Extension Toxicology Network (EXTOXNET) <u>http://ace.ace.orst.edu/info/extoxnet/</u>

Pesticide Manufacturer's Sites

- AgrEvo Canada <u>http://www.ca.agrevo.com/</u>
- Aventis Crop Science <u>http://www.ca.cropscience.aventis.com/index.html</u>
- BASF Corporation <u>http://www.basf.com/businesses/consumer/agproducts/index.html</u>
- Bayer Inc. <u>http://bayer.ca/</u>
- Cyanamid <u>http://www.farmlinepartners.com/pub/west/products/index.html</u>
- DowAgro Sciences http://www.dowagro.com/canada/
- DuPont Canada <u>http://www.dupont.ca/ag/index.cfm</u>
- Gustafson Inc. <u>http://www.gustafson.ca/</u>
- Monsanto Canada Inc. <u>http://www.farmcentral.com/</u>
- Novartis <u>http://www.cp.novartis.com/</u>
- Nufarm <u>http://www.nufarm.com/index.htm</u>
- Rhone-Poulenc <u>http://www.rp-ag.com/RPAG.htm</u>
- Rohm and Haas <u>http://www.rohmhaas.com/businesses/AgChem/index.htm</u>
- Sumitomo <u>http://www.sumitomo-chem.co.jp/organizn/agro_e.html</u>
- Tomen Agro <u>http://www.tomenagro.ca/</u>
- Uniroyal Chemical <u>http://www.uniroyalchemical.com/</u>
- United AgriProducts <u>http://www.uap.ca/</u>
- Zeneca Agro <u>http://www.zeneca.ca/zeneca/website/ZenWeb6.nsf</u>

More sites will be forthcoming in the next newsletter.

Standing Committee on Environment and Sustainable Development

The Standing Committee released their report **PESTICIDES Making the Right Choice For the Protection of Health and the Environment** in early May 2000. The 212 page report makes many far-reaching recommendations concerning the future direction of pesticide registration and use in Canada. Following is the preface written by the Chairman (Charles Caccia, former federal Environment Minister) to the report which provides the general tone. Copies of the full report are available from:

English:

http://www.parl.gc.ca/InfoComDoc/36/2/ENVI/Studies/Reports/envi01-e.html

French:

http://www.parl.gc.ca/InfoComDoc/36/2/ENVI/Studies/Reports/envi01-f.html

During the past 12 months the Standing Committee on Environment and Sustainable Development of the House of Commons has studied not only the extent of, and the reasons for, the use of pesticides, but also their impact on human health and the environment. We have also studied the economic implications of their use and the administrative responsibility for regulating them. Clearly, as a society, we have become very dependent on the use of pesticides. This does not mean, however, that we are unable to alter such practices. We can all think of other products which were once widely used in our society and today we have been abandoned because of changes in values and attitude. Prime examples include the use of tobacco, asbestos and lead. The major shift with respect to public acceptance of smoking would not have been contemplated two decades ago. The same can be said about the use of lead in gasoline – now mostly a thing of the past – yet deeply entrenched when the first concerns about its neurotoxicity emerged. A similar pattern can be found in the use of asbestos in buildings, once prevalent and now banned.

As we all know, governments act with greater speed and resolution when clear arguments are made about dangers posed to public health. At times governments have acted without waiting for the smoking gun, but at other times reluctantly due to competing views by sectoral interests. In the meantime, the public bore the costs of protracted inaction, be it in the form of pulmonary diseases and cancer in the case of tobacco and asbestos, or in the form of lower IQs and learning disabilities in children, as in the case of lead. With pesticides, we have good reasons to worry about public health, safety and the special vulnerability of our children. Public health groups, including family physicians, were very forceful and persuasive in expressing to the Committee their deep concerns about the current pervasive use of pesticides in our society. Citizens are not waiting for the smoking gun to act; they are taking action to reduce, and in some cases ban the use of pesticides for cosmetic purposes in their communities.

When we looked at the economic side of this issue, a key question emerged: can our present food production and distribution systems, which are so integral to our daily lives, survive in the absence of pesticides? The frank answer is that our reliance on pesticides in agriculture is so overwhelming, it would be impossible for us to abandon their use in the short term. Unfortunately, there is no replacement system readily available, no instant or magic solution. There is much debate as to whether an adequate food supply, at a reasonable price for consumers and a lesser cost to farmers, can be brought to market without pesticides. When could organic farming become an economically viable alternative for farmers and consumers and under what conditions?

The European Union (EU) has experienced a remarkable growth in organic agriculture in the last decade, particularly in Austria, Finland, Greece, Italy, Spain and Sweden, due to the introduction of EU and national grants. The land being farmed organically in Europe has increased about eight times between 1987 and 1997, with Austria leading the way. The European Union's aim is to have 2.5 per cent of all farms in organic production by early this year while the Austrian government has set a target of 20 per cent.

The Committee hearings made us aware that we should have started long before now to plan and build such a replacement system in Canada, in light of the strong evidence that chemical pesticides are detrimental to our environment, health and particularly our children's health.

We looked at the current system of regulating pesticides in Canada and we asked ourselves whether it is possible for one agency, the Pest Management Regulatory Agency (PMRA), to perform two virtually conflicting tasks, namely that of approving chemical pesticides as requested by industry while at the same time regulating them in order to protect human health. We asked ourselves whether it is possible to strike a balance between economic and health protection goals. The Minister of Health described the conflict himself on May 28, 1999 in Question Period when he said:

the PMRA has to balance public safety and environmental concerns against the needs of producers and growers.

We found, however, that pesticides are highly poisonous substances designed to kill living organisms and are thus potentially harmful to workers using them and to farming and urban communities unknowingly exposed as well as to consumers. Therefore, we asked ourselves whether a regulatory system could be designed that would give clear and absolute precedence to human health. Based on our findings, it must be designed as such.

The choice facing us is clear: either to continue with our chronic dependence on pesticides to the detriment of the environment, agricultural sustainability and human health, or, to give public health protection clear precedence. We have already done so with tobacco, lead and asbestos. Pesticides should be next.

Charles Caccia Member of Parliament for Davenport Ottawa, May 2000