ACU PESTICIDE DATA BASE

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SUMMARY

The Pesticide and Animal Remedy Information System (PARIS) became operational in July 1990. This data base replaced the existing separate data bases used for animal remedies and pesticides. It also incorporated information on various other internal and external information used by the Agricultural Compounds Unit. By using its reporting facility various reports and statistics on pesticides can be produced.

Keywords: PARIS, powerhouse, QUIZ

INTRODUCTION

With the merging of the Animal Remedies and Pesticides secretariats in 1988 a new data base was required to incorporate each separate system. The software selected was Powerhouse, designed by Cognos, Canada. The New Zealand distributor is Commercial Data Processing.

The data base was designed to meet the requirements of the Agricultural Compounds Unit (ACU). Other information included in the system were Maximum Residue Limits set in various countries, Premise Inspections of Animal Remedy Manufacturers, Register of Fertilisers and Vertebrate Pesticide Control Licence holders. A report generator is used to produce reports for internal and external use.

PARIS

Pesticide registration information held on PARIS relates to the product, its active ingredients, manufacturer(s), proprietor, use patterns and withholding periods. In addition, it is used to log progress of applications for registration, Experimental Use Permits, change in use patterns, formulations, and administrative changes.

An overview of the system is outlined in Figure 1. PARIS is based around the product (eg. registration number, product type, formulation type, registration status etc). Formulations, use patterns, proprietors, manufacturers and applications are all linked via this. The withholding period information is indirectly linked to the product. This separation is due to the requirement of linking active ingredients, rather than product, to withholding periods.

Various screens are used to enter or amend information on PARIS Sub-screens are used to enter details on formulation, use patterns etc for the product.

REPORTS

All information held in PARIS can be extracted using the Report Generator of the software known as QUIZ. Information can be reported to a dot matrix printer, laserprinter or on disc. Reports produced on a frequent basis are incorporated into PARIS. Ad hoc reports can also be produced.

Reports generated are used internally or provided for outside clients. They can be, as stated above, designed to provide information specifically required by the requester. Information on product details (ie. product type, licence number, trade name, proprietor, formulation, use patterns etc) can be extracted using QUIZ. The format and order of information in the report can be varied. A charge for external requests for reports is made based on computer and programming time.

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Figure 1: Generalised structure of PARIS data base relating to pesticides.

OPERATION OF PARIS

All applications relating to pesticide registration, experimental use, changes in use patterns etc are entered into PARIS by administration personnel. These include new products, and any proposed changes to existing products. The Application Screen is used to monitor progress of each application in the system. Specifically, progress of evaluation of toxicological, residue, environmental, formulation and efficacy data and correspondence to and from referees or proprietors are recorded. Therefore, an audit trail for each application is maintained.

Information in PARIS is continually updated. An audit is carried out when each application is completed to ensure information on the product is correct. One of the key updating steps is final label submission either for a new product or existing product. At this step, for new products, use patterns are entered, product details are amended to reflect its status and date of registration is entered. Dependent on the type of application for an existing product various screens are also updated.

The ACU is currently seeking certification for International Standards Organisation (ISO) 9002 Standard for registration of pesticides and veterinary drugs. ISO 9000 Standards are internationally agreed steps leading towards the goal of Total Quality Management. The ISO standards form a system for managing the quality of a process to ensure what goes out of an organisation, goods or services, is a quality product. The PARIS database is one part within the quality system.

APPLICATION STATISTICS

With the presence of an application screen to monitor progress of applications various statistics can be produced using the Quiz Reporting system. Statistics on applications over a 1 year period from 1 January 1993 to 31 December 1993 are reported. These data are only for accepted applications and include statistics for both new and existing products. Multiple applications for any one product over this period are also included.

Application types

Figure 2 outlines the various application types and percentage of each received over this period. The main area of activity was in processing of administration changes (eg. change in proprietor, trade name, minor label changes) followed closely by

Figure 2: Percentage of various application types processed for the period 1 January 1993 to 31 December 1993.

applications for Experimental Use Permit (Not for Sale) (in general, testing of new compounds). Applications for registration constituted only 15% of the total number of applications received and processed by the ACU. It is of interest that the most applications received by the ACU are not charged for - fees are only payable for applications for registration.

Figure 3 shows the maximum, minimum and average number of days for processing and completion of applications. The average processing times for applications for registration, Experimental Use Permit (Limited Sale) and changes to use patterns (ie. additional label claims, rate changes, withholding period changes) were similar. This is due to the similar data requirements for these application types involving one or more areas of efficacy, residue, toxicological and environmental data. Also, for three application types, some applications were processed within one day of receipt.

Figure 3: Processing times for various application types for the period 1 January 1993 to 31 December 1993.

It should be stressed, with the exception of some Administration applications, these processing times do not just reflect ACU input. They also include submission of final labels by proprietors and ACU requests to proprietors for further information or data. Consequently, these times would be significantly reduced if ACU input only was included.

Overall, these times compare favourably with other Regulatory Authorities in the world.

Product types

Figure 4 outlines the percentage of applications for each product type (regardless of application type) which the ACU received over the one year (1.1.93 to 31.12.93). Main activity was with insecticides, followed by herbicides and fungicides. These three product types made up the majority of applications (76%). None of the remaining categories exceeded 5%.

Figure 4: Percentages of applications for various product types for the period 1 January 1993 to 31 December 1993.

Figure 5: Applications made in different crop groupings for the period 1 January 1993 to 31 December 1993.

Crop types

Figure 5 shows the percentage of each major crop grouping (it excludes non-agricultural/horticultural situations) for which applications were made over the one year period. These figures should be used as a guide only as PARIS can not directly link an application to a specific new/revised use pattern. Cereals had the single largest area of activity followed by pasture and turf. By widening the groups further into fruit and agricultural food crops (excluding cereals), then activity on fruit crops was significantly higher than on agricultural crops.

The product and crop type statistics give an indication of the direction of the pesticide industry. These statistics were compared against the number of registered pesticides for each product type for the last 10 years, obtained from the Pesticides Board Annual Reports (1984-1989). The trend seems to be a move away from activity in herbicides and more emphasis on fungicides and insecticides. To a certain extent this is supported by the crop group data showing more activity in horticultural crops.

CONCLUSION

The introduction of PARIS has produced a more efficient system for data storage, tracking, auditing, and report generation of information relating to pesticides. PARIS has become an essential management tool in the registration system for pesticides. By use of the report generator, extensive information can be extracted and statistics produced for internal and external use.

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