Checks on whether these calculations and assumptions are reasonable are carried out by the regulatory authorities through the national market basket survey and specialized surveys. All export produce is also sampled.

The nett result of this sampling clearly shows that suggestions that our farmers are blatant abusers of these products to be false and misleading. Malicious propaganda of this sort can nullify the efforts of nutritionists and other health professionals who are encouraging the greater consumption of fresh fruit and vegetables for the well being of the community.

Environmental issues

The earliest submissions for registration contained little data on such issues. Today the environmental data package contains information on the effects on terrestrial and aquatic systems, degradation processes and the effects of light and temperature on those processes. Also included is the potential for bioaccumulation and biomagnification as well as the leachability in various soil types. The hazards to beneficial organisms is of high importance to enable compounds to be integrated into pest/crop management systems.

Conclusion

The regulatory system which has evolved in Australia ranks amongst the best in the world for the breadth of the data requirements and the thoroughness of assessment.

The result is the best labelled products in the world which are used to produce the highest quality food and fibre to satisfy our domestic and overseas markets.

Marketing and sales of new products: "The Monsanto experience"

Steve M. Jones, National Sales Manager, Monsanto Australia Ltd., Melbourne, Victoria 3000, Australia.

Getting a dollar return – what's involved?

The product

Key to any successful marketing and sales exercise is having a product or service that has a value that customers are prepared to pay for. In the case of agricultural herbicides it involves having a product which will control weeds that cause an economic loss and therefore will return an economic benefit if used correctly. Of course along with the ability to do the job, the product needs to stand up to the tests of environmental acceptability and the toxicology profile that other speakers have identified.

What Monsanto looks for are products that will control a known problem in large hectare crops at low active ingredients rates per hectare and are extremely safe to use and do not persist in the environment. Other uses and crops may become obvious in screening or field testing.

Assuming we have identified a use for the product in hand and it meets the criteria set for it, what next?

In Monsanto's case, it falls into one of two groups:

i. is the product in question already registered (label expansion) or

ii.is it a new product that needs registration.

The first situation is obviously a cheaper allocation of resources and potentially easier to generate a quicker dollar return. The second situation is more involved and more costly as it often means allocation of resources to a new and more risky venture versus the spending of those resources on expanding the uses of already successful products.

In this case I will use the example of Dimension Herbicide, a summer grass herbicide in turf. This is new minor use chemistry that Monsanto has just received registration for, but it represents the first molecule in a new family of chemistry that has much broader uses. It competed internally for resources against the highly successful Roundup house of brands and products.

To ensure success, Dimension needed to suit our long term business strategy worldwide, and needed allocated resources. This was achieved via employing 1.5 people to oversee all aspects of pre and early post-launch, and also establishing a budget to fund these aspects.

Assessing the market – past, present and future

Monsanto conducted a historical market assessment of the turf production and turf maintenance business. We mapped its growth and attempted via market research to assess it today and to determine where it might be in the future. This gave us the frame work in which to develop and apply a marketing and sales plan for Dimension Herbicide.

For Dimension, we needed to determine a net value for the turf production and turf management industry. Where was summer grass present? Could the market be sub-segmented into say the lawn care operators in suburban areas, turf producers, resort golf courses, public ovals, public turf, etc.? What value did each attribute to their turf? What practices did they employ to control summer grass? Were the segments changing?

Competition

A key element in determining a strategy for a new player in the market is to understand the competition that is, and could be, in your chosen market. Competition analysis included not only other chemicals, but cultural or management practises that could affect summer grass control in turf. We reviewed existing chemistry, and also future chemistries for compounds and practices that may impact on the market.

All these competitors were listed and compared for effectiveness, cost per unit area to the user, likely cost per unit area to produce, profit margins of the distribution network, safety to the turf and user, convenience of use, perceived or real weaknesses in performance. In marketing jargon, we conducted a SWOT analysis.

Market parameters – size, where, who? How much, where and to whom can we expect to sell our product? How much of this market should we attempt to get and over what time frame will we pursue it? What factors are important in achieving our goals?

Such questions are critical if Monsanto is to determine the amount of product that is made, potential pricing options, early distribution needs etc.

A survey and series of focus groups on acceptability of the product profile was conducted. This allowed the assessment of the likely rate of adoption and who were going to be the innovators, early adopters and laggards. The resort golf courses had the budgets, were often leading the industry in determining better solutions to their problems and were often turf manager icons having been lured from other golf courses etc.

We had our key target market!

The customers and key influence people needed to be identified. What did they use today? Who did they buy it from? Were they happy with what they were doing to control summer grass today? What would they be prepared to pay for something that did the job better?

To effectively reach these other key influence people we created an extensive data base with all the information we gleaned as we studied the market. The intent of that data base was to use it in reaching our customers more effectively.

The product – positioning, characteristics, performance

Monsanto has always attempted to establish the product in its key market with a clear positioning message. The positioning statement for Dimension was to include the benefits of the product, describe what it is and yet not position the product in a pigeon hole that restricts its future uses:

"Dimension Turf Herbicide provides season long control of summer germinating annual grass weeds in managed turf, improving its quality and value."

The statement will be used consistently in advertising and promotions. It communicates use and application flexibility, improved turf and it is safe to turf.

The product we will use is determined on what type of formulation is available, what type and size of packaging is best etc. Dimension is a 120 g L1 EC in one and five litre plastic containers, packed in 4 × 5 and 12×1 litre cardboard outers.

The product performance is reviewed from the trial data base, both in Australia and overseas. Effectiveness, spectrum of control, safety to turf and best use techniques are summarized for communication, both internally and externally. New directions are issued to our researchers to refine or explore newly recognized opportunities or areas of concern.

Most importantly, to show the product performance and introduce key people to Dimension Turf Herbicide, we established many look and see trials with key turf managers and influence people. Monsanto relies extensively on the look and see technique to demonstrate performance against claims.

People and distribution

Identification of key people involves identifying key industry people who will help communicate the benefits of the new product. It is important to identify what will be required internally of our own organization in terms of technical knowledge, taking orders, packaging, transporting, credit control and selling the product via the chosen distribution.

It is crucial that Monsanto people know about the products they are selling. We identified those Monsanto field sales representatives who covered the previously identified key markets and involved them from the beginning in early product training sessions, in developing aspects of the marketing plan and then in establishing the look see trials in co-operation with the key industry people. This assists in establishing some field ownership to Dimension in an attempt to strike the right balance between spending time selling Dimension versus their main function of selling Roundup brands.

Time demands will also vary with the chosen method of distribution.

Consideration of methods of getting the product to the end user is very important in the success or non-success of a new product. In the case of Dimension we looked at all alternatives from selling direct to the turf manager to utilizing the current established distribution channels.

We were keen to strongly market and establish the Dimension brand in the fastest and most economical method. Our experiences with other distribution alternatives in the broadacre field allowed us to consider and create an alternative to that already existing in the industry at the

Pricing

Determination of the correct price is critical to the company maximizing returns on the new product and encouraging maximum adoption by the end user i.e., offering value for money. Pricing for Dimension was a combination of competitive treatment costs, costs of getting the product to market and encompassing a return for the distribution channels for value added services and the type of result delivered.

Promotion

Once price, product, distribution and performance was determined, promotional considerations on how to create awareness and communicating the benefits of using Dimension need to be determined.

Starting with show and tell type trials, advertising messages, use of direct mail, pull through campaigns, free samples etc., we have been effective in creating initial demand for Dimension.

However, longer term repeat use is essential. Branding and further awareness are important to achieve this, assuming the product delivers the results. The use of professional and high quality support

people, literature and advertising material will give the best images of the product to the end user and instil confidence in chosen distribution.

Supporting and maintaining an industry presence will also be important. In the earlier days of Roundup, Monsanto were concise in ensuring an image of reliable performance i.e.:

"Kills Roots and All - Guaranteed"

Customers

Knowing the customer is becoming more critical as available resources decrease and competition increases. The more effectively we can communicate with our actual prospect the more cost effectively we can sell each litre. The use of data bases will no doubt increase with the ever increasing use and availability of various forms of communication techniques.

For Dimension, we analysed the distribution location, market coverage, technical competence and customer profile. We identified golf course superintendents and who they bought from. We attempted to identify key city municipality people and turf farm operators. We also identified such things as the influence of the Golf Club Committees on wanting "perfect" fairways and ensure they have access to Dimension performance.

Also, we identified "other" opportunities like race courses, bowling greens, key public turf areas, lawn care specialists and domestic lawns.

Sales

Monsanto launched Dimension this year to capitalize on the upcoming preemergent summer grass season, but we still had to ensure the sale!! Marketing inputs create the opportunity to capitalize on sales. This is important to ensure that Dimension receives allocation of time from the field staff and is not swamped by the seasonal pressures of Roundup. A sales and support target for individual sales representatives is written into goal documents. We also involve staff in product training sessions and working parties to refine in an ongoing way strategy and tactic development. Use of industry communication mediums and conferences, assisting the agency system and one on one sales calls with key people are written into the day to day activity plans of the Monsanto selling staff.

Overview

Monsanto has set clear financial, volume and product performance goals internally. Dimension is a business that must support itself to survive. Initially, it will run at a negative income because we have paid for registration, printed labels, bought and packed kegs, made glossy brochures, given away product for user trials, allocated considerable time etc. without an initial sale until two weeks ago. It has taken 8.5 years of the 17 year Australian patent to achieve this.

Monsanto are keen to see it deliver net positive returns as soon as possible. Realistically this will take two to three years on our predicted sales volumes. Of course the challenge is to bring this forward.

Application

Harry Combellack, Keith Turnbull Research Institute, Department of Conservation and Natural Resources, PO Box 48, Frankston, Victoria 3199, Australia.

Details of this presentation are available from the author at the above address.

End users and the environment/consumer

Jan Bowman, Department of Health and Community Services, Pest Control Unit, 555 Collins Street, Melbourne, Victoria 3000, Australia.

Pest Control Unit

The Pest Control Unit of the Department of Health and Community Services administers registration of Pest Control Operators and the licensing of pesticide users. Its functions are to ensure that standards are being enforced and that chemicals are used safely, effectively and in a manner which does not place the community at risk. This is achieved by regulating the standards of training and operation required by Victorian pest control businesses and their employees, inspection and surveillance of the pest control industry and provision of advice on the technical and health aspects of pesticide usage.

The legislation relating to Pest Control Operators is found in Sections 108 A to H of Division 2A of the Health Act 1958. It requires that pest control businesses applying registered pesticides should be registered and licensed by the Department of Health and Community Services (Sections 108 B and C).

When pesticides are used in the course of the business of a pest control operator, they must be used according to the Health (Pest Control Operators) Regulations 1992.

Weeds, or other vegetation, which inhibit intended growth on urban, industrial, municipal or public lands are prescribed as pests.

The prescribed qualification for the granting of a licence that authorizes the use of pesticides that have been formu-

lated for the control of weeds is the completion of at least one of the approved courses. These are:

In Victoria:

- Certificate in Weed Control conducted by Northern and Metropolitan College of TAFE, Tel: (03) 387 3255.
- Pest Plant Management Course conducted by Victorian College of Agriculture and Horticulture Creswick Forestry School, Tel: (053) 452 100.
- Weed Identification and Their Control conducted by Commercial Pest Training Services, PO Box 434, Yarrawonga, Vic 3730, Tel: (057) 442 205 also in conjunction with the Herbicide Applicators Association of Victoria, Tel: (03) 844 4380.

In South Australia:

 South Australia Weed Control Certificate Course conducted by Gilles Plains College of TAFE.

The licence endorsement for weeds is a general one and is not intended to be limited to a specific type of application. Therefore the Department of Health and Community Services is of the opinion that a course tailored to the needs of herbicide users should maximize the public health perspective. There is a need for careful weed identification and herbicide selection and application. Problems associated with spray drift, herbicide resistance, run-off into aquatic systems and the associated appearance of nuisance algae or contamination of drinking water are all

public health issues.

With the introduction of the new regulations, a the three tiered licensing system was implemented on 1 January 1993. Guidelines outlining this system are available from the Pest Control Unit.

- i. Trainee. A new employee of a pest control business who has no training or experience will be given a "trainee" licence to allow the appropriate experience to be gained under supervision while the prescribed qualifications are completed.
- ii. Technician. A technicians licence is given when the qualifications are completed usually after one year of employment. This allows the licence holder to work with minimal supervision.
- iii. Technical Manager. After at least two years experience in the industry a technician may apply for a technical managers licence. A technical managers licence allows the licence holder to operate as a pest control operator business.

As an interim measure during the first year of implementation of these regulations, experienced herbicide applicators were given a technicians licence with a requirement to complete an approved course which was specifically tailored to herbicide use. This allowed owner operators to register their business and continue to operate until fully qualified.

A "business" is established if it can be proved that a person is engaged in a commercial activity, even of an intermittent kind, where there is an ultimate expectation of commercial gain. Therefore although pest control businesses are required to be licensed with the Department of Health and Community Services, employees of government departments or