

ECONOMICS OF MARKETING AND TECHNICAL SUPPORT IN THE COMMERCIAL BIOLOGICAL CONTROL INDUSTRY

R.J. Valentin

Technical Business Manager, Koppert Canada Limited, Scarborough, Ontario, Canada

INTRODUCTION

A novel approach is required when marketing biological control agents as opposed to other products in the agricultural industry. Biological control agents are living organisms and are not produced, marketed, transported, or sold in the same way as fertilizers, pesticides, or any other products used in the greenhouse industry. Biological control in commercial greenhouses is successful when it is approached as a system. In greenhouse crops, often there is an array of insect and disease pests. When using biological control, it is important that all pests be controlled biologically. It is difficult to use a “traditional” approach to insect control (i.e., chemical treatment) for some pests and at the same time attempt to use biological control agents for other pests. Many pesticides have a negative side effect on one or more biological control agents and can disrupt the “system.” This disruption often leads to the failure of the entire pest control program.

THE PRODUCTS

Biological control products are sometimes viewed as just a “bottle of bugs;” however, unseen valuable services come with the physical product. These services include (1) prior research on which species and life stages of the insect to use, as well as information on the best formulation, carrier material, and packaging systems for preserving product quality; (2) rapid shipment of the product, including tools to maintain proper environmental conditions during transportation, efficient shipping logistics, and effective shipping materials, and (3) accurate release recommendations and directions for product use, including technical support to growers, knowledge of the natural enemy’s biology, efficacy, and its compatibility with pesticides. Such services are made available through labelling, brochures, grower seminars, direct contact with customers, and maintenance of on-line or published information on pesticide impacts on natural enemies (side effects guide). These services add to the price of the product, but are key factors in promoting the success of the biological control programs in which the products are employed.

SHIPPING

Shipping conditions used for biological control agents significantly affect the chances of success of a biological control program in the greenhouse. Poor shipping conditions result in poor quality products, leading to pest control problems or even program failure. Koppert Biological Systems and many other producers of biological control agents have invested considerable time and money to develop shipping procedures that assure good-quality products for the customer, including climate-controlled transportation methods, climate-controlled rooms for sorting and packing products, and use of Styrofoam containers, ice packs, buffer packs, and data loggers to control and monitor conditions during shipment.

Climatic conditions at the origin and final destination dictate the type of packaging material and the number of cooler or buffer packs that will be needed during shipping. Not all biological

control products can be packed together in the same Styrofoam container, as some products can affect other products, or may require different temperature during shipping. Electronic data loggers are used to monitor conditions during transport of each shipment.

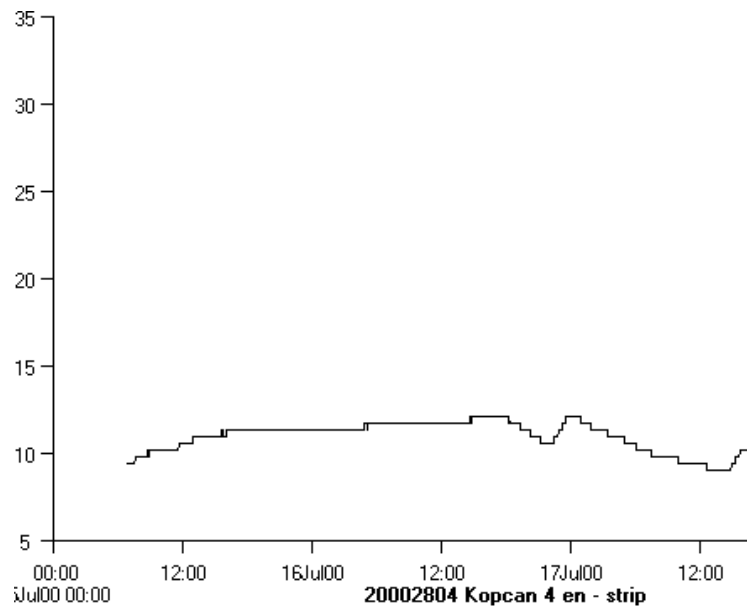


Figure 1. Relation of temperature (inside packaging) versus time (days since start of trip) during shipment from The Netherlands to Toronto, Canada.

MARKETING OF PRODUCT

Marketing of biological control agents is done either directly by the producer or through a distributor. The decision how to market a product depends on several issues, including the geographical area, the customer's location, the presence of a greenhouse supply company in the area, and customer relations.

Marketing Through a Distributor

Marketing through a distributor has several advantages for a natural enemy producer. The most important is that supplying products through a distributor often broadens your customer base. However, when supplying beneficial agents, it is also important to provide sound technical advice to the customer. The distribution company has to be prepared to employ enough technical support staff to provide customers with needed advice on the products. These employees need to dedicate a significant proportion of their time to the biological crop protection department in order for it to be successful. In addition, the distributor must use an efficient transportation system in order to ensure that the customer receives high quality beneficial insects.

Conflicts of interest may arise within a distributing company. The distributor may also sell chemical pesticides as well as biological pest control products. At times, selling both products may have a negative effect on the biological control agents. Distributors that are only interested in sales often have more failures with their biological control programs. The goal must be a successful biological control program, not just product sales.

Marketing by the Producer

When a biological control producer decides to market their biological control products directly, a complete product line must be available to ensure that the biological pest control “system” is complete. If a producer decides to market directly, the producer must also ensure they have employees with adequate training, to provide technical support to growers. The advantage of this marketing system is that the technical support staff is focused only on selling biological control products and providing technical support to the grower.

However, the producer must have customer loyalty to be able to afford to employ technical specialists. In some countries, greenhouse growers buy their beneficial insects from many different suppliers each week because of price differences or limited product availability (i.e., the entire product line is not available from one producer or not in the necessary quantities). This makes it difficult for the producer to employ technical support staff. In countries where this situation occurs we often see that growers are skeptical about successful biological control and often have had failures. A biological control system becomes more reliable if growers work with one producer or supplier and one technical support person.

TECHNICAL SUPPORT

In the past, technical support was not always available to the grower. In many cases growers were interested in biological control and started a program on their own, just buying product from a supplier or producer. Inevitably, the grower reached a point where they had questions and required technical information from the producer. In some cases no support was available, and the program failed. This in turn created a situation where growers were skeptical about the merits of biological control. Therefore, it is extremely important to make sure that growers are able to get the technical support needed to set up and follow a biological control program. A good technical support person is able to tell a grower why he has to introduce certain biological control agents at a given time and how to monitor the biological control agent in the crop. This means not just making a sale. This sometimes even means that a technical support person has to tell a grower not to start a biological control program until there has been a cleanup period of several months to permit pesticide residues to degrade before releasing the first biological control agents in the greenhouse.

At Koppert Biological Systems all employees receive in-house training, function only as biological system specialists, and have no commitments to other products or services. In many countries, there is a team of such specialists who communicate regularly regarding biological pest control in various crops. The sharing of knowledge and practical experience between technical support staff ensures that each staff member remains up to date on how to use each biological control product.