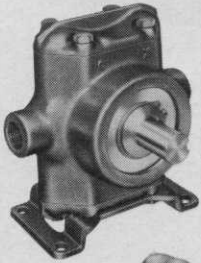


Hypro Pumps

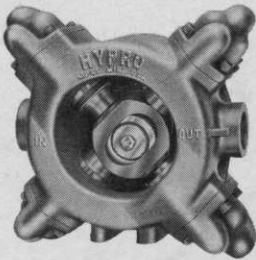
for applying
weed and turf
chemicals

PISTON PUMPS



Series
C5210
BIG TWIN
10 gpm (at 600
rpm)
400 psi pressure
also available with
gas engine

Series
5400
4-CYLINDER
PUMP
25 gpm output
at 600 psi



ROLLER PUMPS

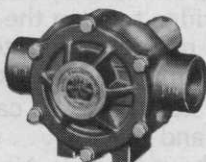
Series
GN6310R
6.9 gpm at 100 psi
5 gpm at 200 psi
3 hp engine
(develops up to
250 psi with
4-hp engine)



Series **7560**
8-ROLLER PUMP
Output 12 gpm
(at 540 rpm)
Pressure to 300 psi.

Choice of rubber or nylon rollers

Write for complete pump catalog or request
pump recommendation for your need.



Series **1500**
6-ROLLER PUMP
Output 30 gpm
(at 540 rpm)
Pressure to 150 psi.



Hypro

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347 Fifth Ave. N.W., New Brighton
Saint Paul, Minnesota 55112

INDUSTRY'S ROLE (from page 24)
appropriate full time challenge for the Extension Service. Seldom does the extension man have time to do more than a demonstration type field research.

The quality of the research and the type of research done is more critical than whether the research is done by the experiment station, the extension service, or by industry. I suspect that all of us learn to rely on that information source which proves to be accurate.

It is my belief that the farmer would prefer to look toward the schools of agriculture for his information. In addition he would like to trust someone that can develop a "Total Technological Involvement" approach. In such a program a new practice will have to prove its effectiveness before being generally included as a farmer recommendation. This would apply equally to each new entity to be placed in the system. We would then cease to make excessive claims about new pesticide control programs until they have demonstrated their efficacy in such a system. Industry, in its own interest, will do this kind of research. However, for overall recommendations to the farmer, it becomes obvious that such research needs to be done under public support finances.

The research suggested here would be costly and complex. Therefore, adequate information must be developed on a practice prior to including it in a total technological involvement program. The experiment station supplement with industry research is well suited to the development of this early information — as is the case today.

A chemical synthesis program for new herbicides should be carried out by industry. Synthesis programs aimed at patenting chemical entities are not an appropriate activity for public supported institutions.

A synthesis program done in a university under the direction of a private company and primarily for the benefit of a private company should not expect public support. Early screening programs done under similar arrangements should also not be done at public expense. Few, if any, public supported institutions are organized with adequate organic chemists and biologists to determine activity in an entire chemical series and, also, have well trained patent attorneys to suggest synthesis programs, to write the patent, and then to protect it. A poorly conceived program may succeed in "muddying the water" suffi-

ciently to destroy all commercial interests in the area.

With development costs as they are today, no company can bear the development costs without some patent protection, and under conditions that give the full seventeen years originally intended in the patent laws. Thus, an important discovery may never be developed if it lacks full and complete patent protection.

It should be obvious that the patent system must be allowed to function fully. Without such protection, research and development monies will disappear. Not only will there be no new products for industry, but there will be no new products for agriculture, and mankind will not have the benefits of cheaper and more abundant food supplies.

I was surprised to learn the amount of "mechanism of action" and other so-called "basic" research that goes on in industry. Here it is taken for granted that this type of research must be done to gain label clearances, and it may be helpful in extending the chemical activity of any one chemical series.

Much of industry's research is not published due to the fact it may be continuing to develop leads within the area. Public supported research should expect industry to increase its research above present levels. There is room for both the university and industry researcher — however, there is considerable duplication of effort at this time.

For the sake of mankind, it would be well if we could work ourselves out of our jobs. However, the weed problem is more durable than all of us combined. The field of play and the emphasis may change — but it will remain a professional challenge in spite of the best talents in industry, the university, and the Agricultural Research Services of USDA.

Ohio Landscape Contractors Elect Officers

The Professional Landscape Contractors Association of Ohio recently elected new officers. They are: N. H. Strnad, Strnad Landscape Contractors, Cleveland, President; V. Apanius, Better Lawns & Gardens, Inc., Richmond Heights, Vice-President; N. T. Strnad, Strnad Landscape Contractors, Secretary; R. C. Swinerton, Swinerton's Landscaping, Eastlake, Treasurer.