Choose from a wide range of pump designs and materials to suit your requirements: cast-iron, Ni-Resist and bronze pump housings... even nickel plating on piston pumps.

**PISTON PUMPS**

**Series 5200**
- Big Twin
- 10 gpm output at 400 psi with 6 hp engine

**Series 5400**
- 4-Cylinder
- 25 gpm output at 600 psi

**ROLLER PUMPS**

**Series 6300**
- 6-Rollers
- 6.9 gpm at 100 psi
- 6 gpm at 200 psi
- 4 hp gas engine

**Series 7560C**
- 8-Rollers
- 10 gpm at 200 psi with 4 hp engine

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

Study predicts 4.5% growth in lawn, garden, houseplant chemicals: $650 million in '75

U.S. consumers spent $650 million at the manufacturers' level in 1975 for pesticides, fertilizers, potting soils, and related chemicals for lawns, gardens, houseplants, and general household use, a new 18-month survey reports. Fertilizers, which are used on lawns, gardens, and potted plants, are the largest category with 46 percent of the market, followed by insecticides with 27 percent.

Although the overall business is forecast to grow at a steady yet not spectacular rate of 4.5 percent to 1980 (as measured in constant 1975 dollars), several products are forecast to far exceed the average, according to C. H. Kline & Co., marketing consultants. The most rapidly growing products will be houseplant fertilizers, pesticides, and potting soils, the survey reports. The major reason for the growth of these products is the increasing popularity of potted plants.

According to Kline, over 750 million houseplants are maintained by nearly 60 million households, or an average of 12.5 plants in each household. Although hundreds of different varieties of plants are offered, ivy, philodendron, cactus, fern, and wandering jew are the most popular. Many plants are fertilized and otherwise cared-for regularly.

Certain other segments of the overall business are also growing rapidly, according to Kline. For example, supermarkets and discount stores are becoming leading retail outlets for these products and women are becoming more important purchasers of garden chemicals.

Changes in retail distribution and the growth of small-packaged houseplant chemicals have attracted many consumer product companies to this business because of their skills in selling to mass marketers.

Among the recent entrants are 3M, Alberto-Culver, Gillette, and Pfizer (Leeming/Pacquin).

According to the study, however, the overall market is dominated by three companies: O. M. Scott, a division of ITT (lawn fertilizers); Standard Oil Co. of California's Ortho Division (outdoor pesticides); and S. C. Johnson & Son (household insecticides). These three together controlled 29 percent of the overall market in 1975 with the remainder split among small regional companies. In all, about 250 companies market lawn, garden, and houseplant chemicals in the U.S.

Private labeling of these products is an important aspect of the overall business. Kline reports that roughly 15 percent of all manufacturers' sales, including 25 percent of all potting soils, 15 percent of all fertilizers, and 15 percent of all soil conditioners and mulches, are made by private-label manufacturers.

**Lawn, Garden, and Houseplant Chemicals 1976** is based on analysis of 1,697 interviews, including 166 in-depth interviews with executives in the industry, government agencies, and trade associations and journals; 1,004 telephone interviews with a national probability sample of individual consumers; and 527 interviews with retail outlets.

The study is part of a two-survey analysis of all off-farm applications for fertilizers and pesticides. The companion survey **Professional Markets for Pesticides and Fertilizers**, covers the market for these chemicals in 16 end-use industries including highways, golf courses, mosquito-abatement operations, and railroads. Information on both surveys is available from C. H. Kline & Co., 330 Passaic Avenue, Fairfield, N.J. 07006.