Of the agricultural chemicals industry and its practice of that "science" called marketing, it can still be said that confusion reigns. Prices have been almost as jumpy as those on the commodity exchange. The more or less traditional channel of marketing—from basic manufacturer to formulator to distributor to dealer to farmer—gets shallower and narrower each year. There is great variation of opinion among companies about the best way to approach the farmer, to influence him, to sell him on the value of pesticides: Does the company representative do the most efficient job? Or does the county agent? Or is the key man a dealer? Does the experiment station carry the weight in this field? Can you count on formulators? Or, in this advertising-conscious economy, should one use the huckster approach?

These are questions every man in this field is asking himself. These are the questions Ag and Food asked him also—in a questionnaire sent out to 137 companies in the industry—and to these questions, answers came back from 55%. Ag and Food then asked the same questions of over 104 county agents, including at least two from each state, to get points of view from another part of the system and received a 57% return.

The key question was asked like this:

"Which of the following do you consider most effective in influencing the farmer's purchase of pesticides (please number in order of importance, most important being numbered 1): formulators, dealers, company representatives or salesmen, state experiment stations and extension representatives, county agents, advertising reaching directly to the farmer (including farm magazines, newspapers, radio, TV)."

Two things stand out boldly in the answers, as can be seen from the charts on pages 740 and 742. The state experiment station is unquestionably the most important factor in influencing farmer purchases of pesticides, say the companies. The county agents, on the other hand, rate themselves as most important, but they give the experiment station and extension people a close second. They count overwhelmingly on the experiment station to feed them the information they need to advise farmers on pest control—implicit in their replies is the suggestion that without the experiment stations they would be hard-pressed to keep growers informed.

Closely allied with the complex of influence on pesticide purchases is another question asked only of county agents. This was the question:

"What do you find are the most useful methods of getting information for answering requests? (Please number the following in order of importance, with the most useful source numbered 1):

"Direct inquiries to state extension service or agricultural college

"Bulletins from state extension service or agricultural college

"Literature sent, *not* at your request, by companies manufacturing pest control agents

"Literature sent, at your request, by companies manufacturing pest control agents

"Salesmen or other representatives of companies manufacturing pest control agents

"Dealers in pest control agents."

Unquestionably a county agent receives much of his information about pesticides from his state extension service or agricultural college. All but seven county agents ranked both direct inquiries to and bulletins from the extension service as first and second. Thus, the experiment station is completely in his confidence. Although he has faith in the honesty and accuracy of information he receives from manufacturers, such information is not nearly so helpful to him as is the information originating from the extension service, mostly because it does not often deal with the local conditions.

An interesting sidelight on the information question is the fact that information requested from manufacturers does not rate very high. In fact, it rates even lower than company information not requested. This could be interpreted in two ways: either the county agent does not often make direct inquiries to a company, or the replies he receives when he does request data are so inept and routine as to be worthless to him.

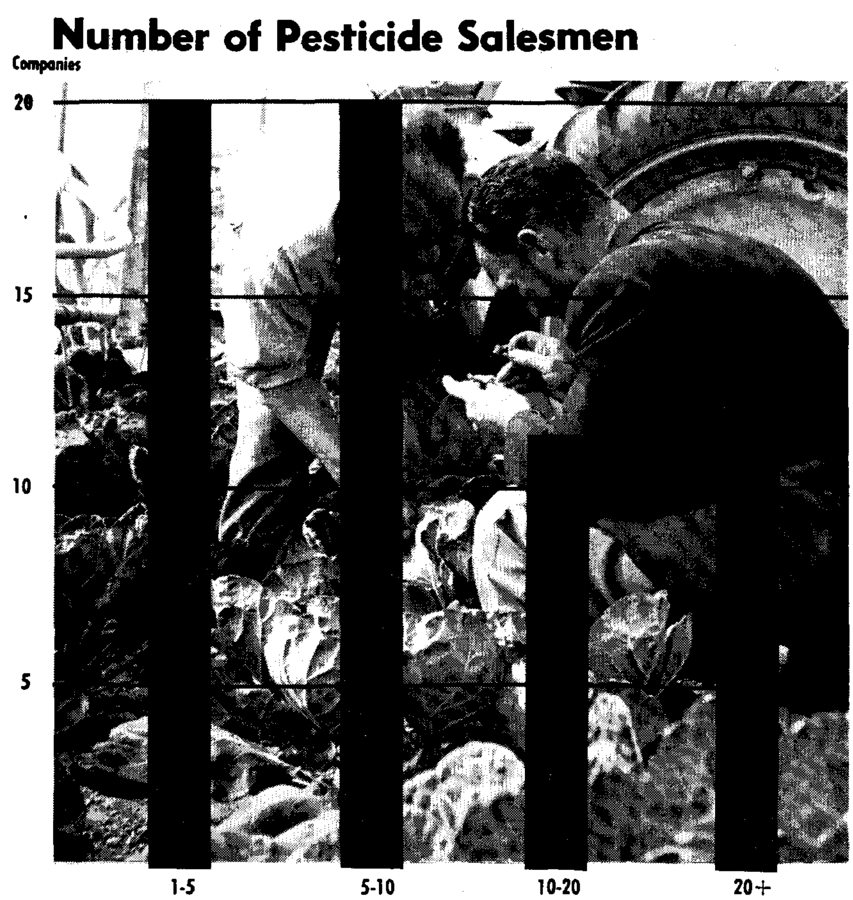
As sources of information, dealers and salesmen rank in the bottom third. Although the county agent thinks the local dealer is an important influence on the farmer, neither the dealer nor the salesman rank very high in his book as helpfully informative on pests and pesticides.

Whither Formulators?

In view of recent developments such as Monsanto's announcement that it will sell its own formulations of its own pesticides in 15 states, the formulator's performance in this survey is particularly significant. He is obviously considered a weak influence on growers' pesticide purchases. County agents also seemed little impressed by the formulator as an influence on farmer buying of agricultural chemicals—only one county agent placed formulators higher than fifth.

These results and Ag and Food's field staff interviews with dealers, distributors, formulators, basic manufacturers, and experiment station workers lead to a

Fieldman for a large formulator checks with grower brussels sprouts for aphis, cabbage worms, and diamond black moths. Chart shows breakdown of companies and their employment of pesticides salesmen

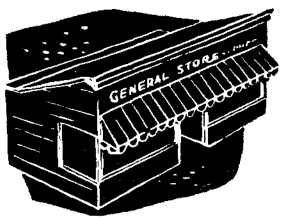


Who Influences Farmer's Buying of Pesticides?

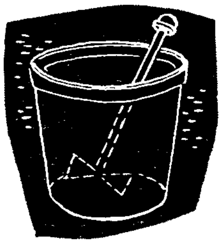
HOW INFLUENCES ARE RANKED

EXPERIMENT STATION

COMPANY SALESMAN



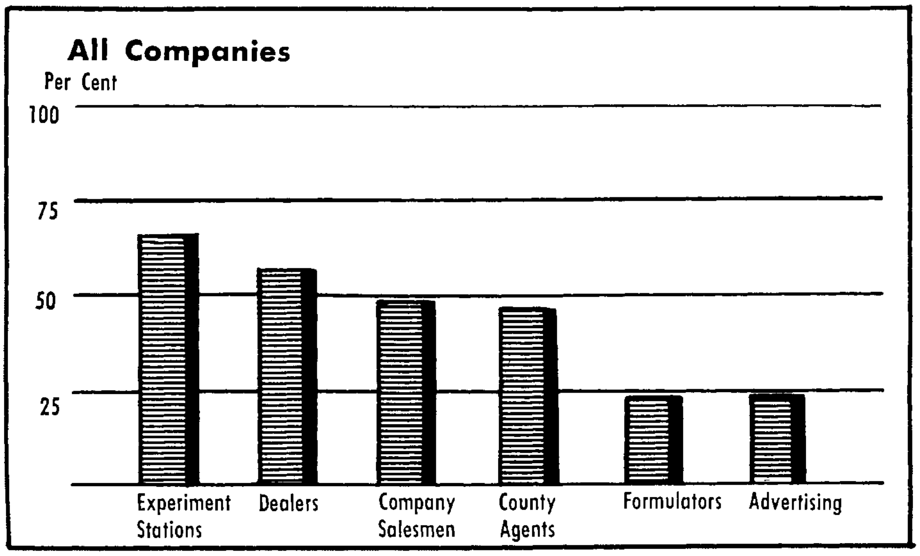
DEALER

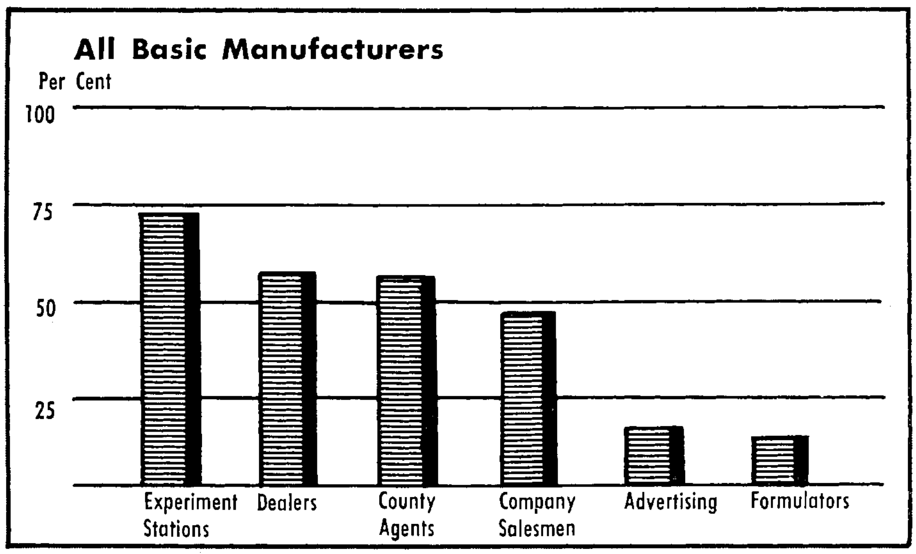


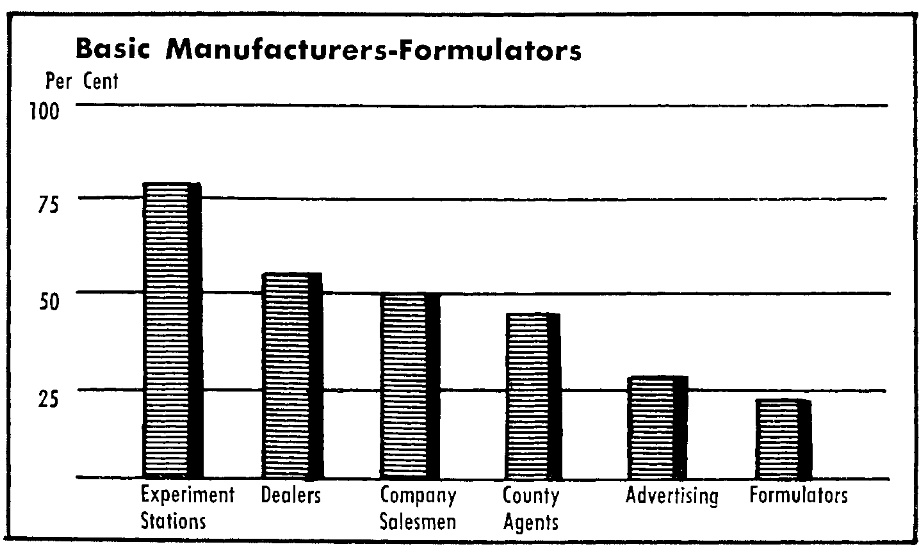
FORMULATOR

COUNTY AGENT

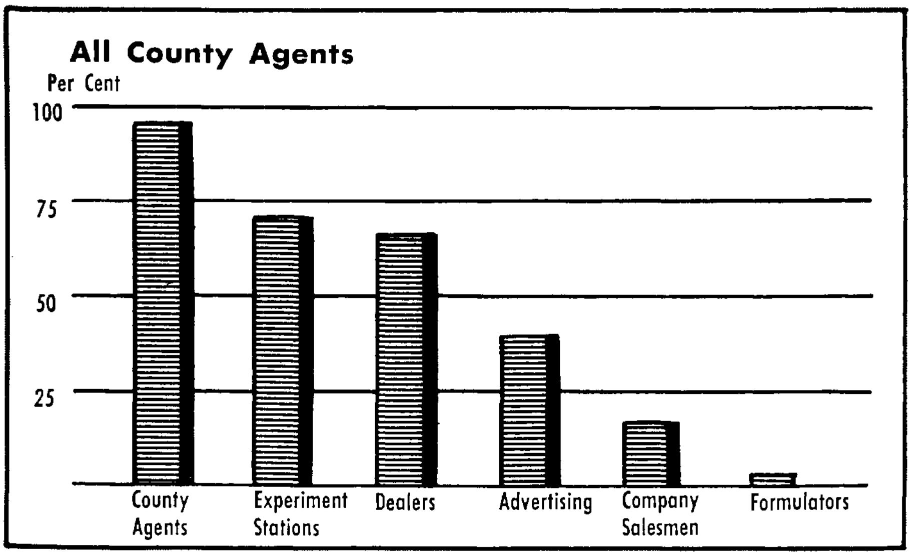
ADVERTISING

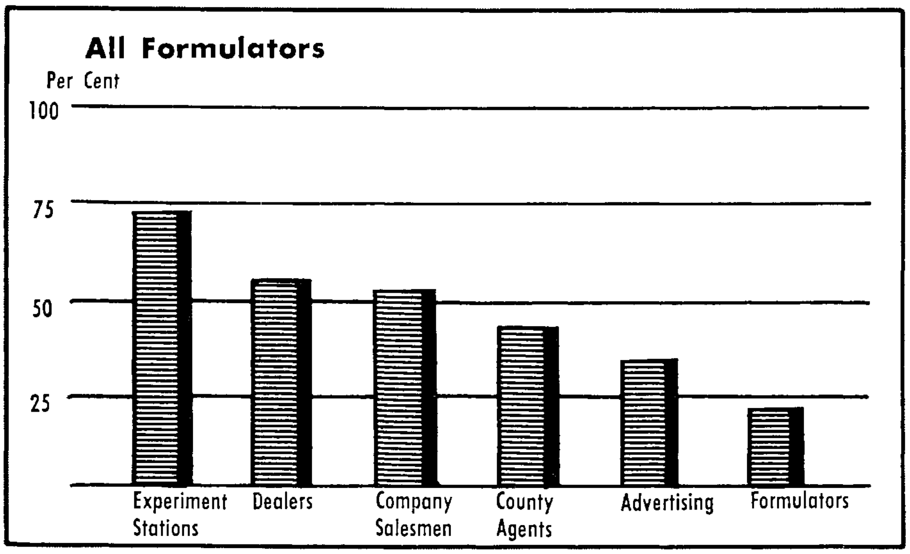


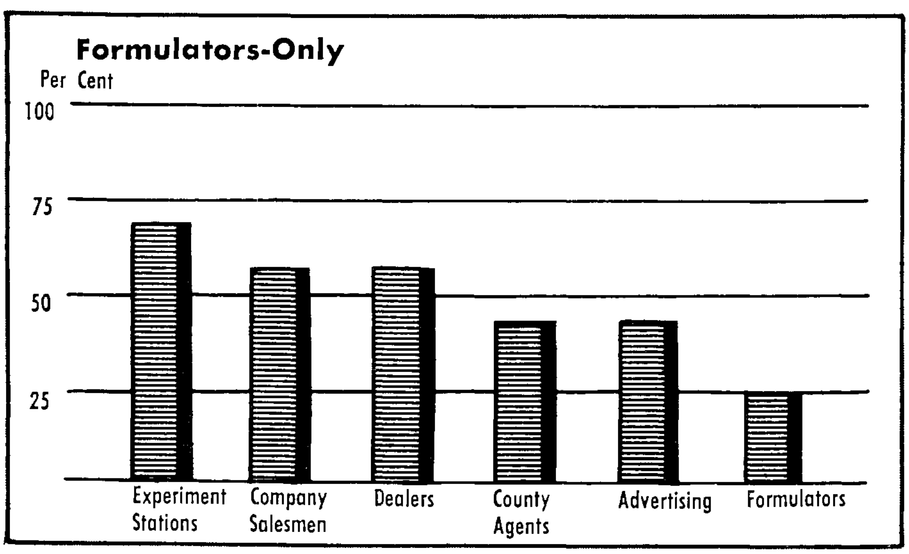




Y VARIOUS GROUPS







consideration of the formulator's place in the future of agricultural chemicals. Of course, the formulator's function is a most necessary one in the scheme of things—someone has to put the basic pesticidal compounds into a useable form. However, many basic manufacturers are beginning to take over that function. Does that mean that the days of the independent formulator are drawing to an end?

The most prevalent and more or less orthodox view is that formulators are unhappy about the tendency of basic manufacturers to move closer to the consumer. The formulators, it is said, will not welcome more competition, especially competition from larger companies, those with large scientific and financial resources. In this view the basic manufacturers will be competing with former customers, taking business away from their former customers, and not developing new markets. Many formulators say that price cutting is originating with those who are both basic producers and formulators. They complain that it is this group which is giving distributor's (not even dealer's) prices to large growers. The Ag and Food survey shows that more than half of the formulator-only group admits to this practice, i.e., selling directly to growers, whereas only about a third of the basic-formulator group admits it.

But there is another available view of the trend, and it does not come only from the basic manufacturers—independent formulators have also expressed it. In this view, movement of the basic producer into formulating is seen as a price stabilizing trend. And these independent formulators expect to benefit from it. They know they will not be able to compete successfully with the large basic producers on all counts, but they do see some areas in which they can do a better job than the basic producer—in dusts for instance. They do not think a basic manufacturer can handle the wide range of different dust formulations, which vary so widely from one locality to another, because of shipping costs. They also figure that the quicker service they can offer will give them a big advantage.

Basic producers point out that their advantages in the formulating business are in terms of advertising and promoting larger inventories, technical service, and research. In the long run, they expect that research will be their most important asset. They also feel that their price-stabilizing influence will be healthy and that only by formulating, and thereby

Bars in the adjoining charts refer to percentage of total in each category rating the various influences on farm purchases of pesticides as first, second, or third. Respondents were asked to rank in order of importance

COUNTY AGENTS RANK INFORMATION SOURCES

1. **Direct inquiries to experiment station**
2. **Bulletins from experiment stations**
3. **Manufacturer's literature *not* requested**
4. **Manufacturer's literature requested**
5. **Dealers**
6. **Company salesmen**

stabilizing prices, will they be able to recoup their research costs. They also point out that getting closer to the consumer is the trend throughout the chemical industry, and of course, agricultural chemicals is a natural spot. (Of the industries which consume chemicals, agriculture is the biggest in terms of its annual sales. However, in its purchases of chemicals, agriculture ranks fifth, despite the wide range of chemicals for agriculture.)

Advertising's Influence Debated

Opinions of the industry on advertising through media that reach farmers directly as an influence on buying of agricultural chemicals ranged all over the lot. The preponderance of opinion placed it in the lower half, however. County agents are somewhat more impressed with it than companies however, 23 ranking it in the top half and 29 ranking it in the lower half.

A sidelight on the advertising question is the matter of brand names. Fifty-two companies sell some pesticides under brand names, according to the survey. However, there may be a trend away from this practice, several companies having recently moved in the other direction. With the great number of products produced by one company, and with that list growing yearly, the money necessary to promote trick names becomes almost prohibitive. Their line of attack is use of their company name along with the generic name—such as "Amalgamated DDT" or "Amalgamated lindane." A positive advantage from this practice is the better mileage they then get out of experiment station recommendations. Experiment stations have complimented companies that take this approach; they think it reduces confusion. However, over 40% of the county agents admit they mention company or brand names when recommending a pesticide to a grower, although most of them say they mention more than one brand name. One dealer told an Ag and Food field staff man that he often gets requests from growers for a specific formulation growers learned about through the extension service.

Dealer and Salesmen Get Boost

The dealer in agricultural chemicals comes out better in this survey than the last few years of talk would lead one to think. A favored whipping boy in the past, he is thought by many county agents and companies to be right behind the experiment stations and the county agents in his influence on farmers. Whether or not they consider his power to be more latent than exercised is another matter.

One county agent said of dealers: "There is always one dealer in every town that causes farmers and others to lose faith in all the rest."

A formulator seems to place more confidence in his company representatives or salesmen than other groups. More than half of the companies that are exclusively formulators rate him as first or second in his influence on farmer buying of agricultural chemicals. Of that half, all but four sell directly to consumers, and all but two sell regionally only. In general these companies that rate company representatives high give a low influence rating to county agents, by far the majority of them placing the county agent in the lower half. Evidently the feeling is mutual, for some 80% of the county agents placed company representatives in the lower half and as sources of information ranked them sixth.

Pricing Policies

However little is the agreement among various factors in the industry over who or what influences the farmer to buy pesticides; the subject of pricing can always be counted on to raise temperatures and blood pressures. In our interviews with formulators and dealers around the country, this was the favorite gripe. In general they were happy with basic producers on practically every item except price cutting. Some claim that such practices start with the formulator who is also basic. Basic producers blame it on the independent formulator.

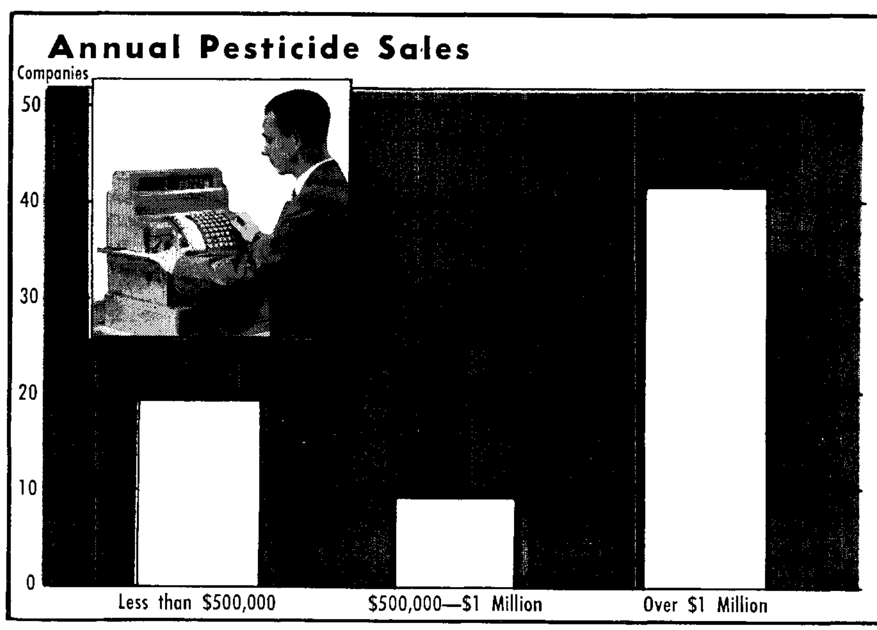
About 60% of those answering said they have some control over the prices paid by ultimate consumers, but most admitted that this amounted to little more than suggested price lists. One or two have their products on fair trade.

In general, the problem of price cutting seems to revolve around the question of defining distributors, dealers, growers—"misclassification of outlets" one man called it. In some cases a man can become a "dealer" or even a "distributor" for purposes of pricing by virtue of being a large grower. In other cases, dealers have become "distributors," again for pricing purposes, because a formulator wants to enlarge his total business volume in a certain locality, but without employing more salesmen. Even aircraft applicators have become "dealers," although the aircraft associations are said to be opposed to this.

Here's the way such practices can grow: Company A sells to growers at dealer prices. Competitive company B cannot protect its dealers unless it can offer to the dealer, distributor's prices. But if company B does offer distributor's prices to dealers, company B's distributors are then forced out. Thus, price cutting backs up all along the line.

One sales manager offered a definition of distributors and dealers. A distributor to him is one that does between 75 and 90% of its business with resellers and gives technical service. Dealers do all of their business with consumers.

A frequently suggested method of stopping this misclassification of outlets is the use of exclusive franchise dealers.



HOW INDUSTRY ANSWERED	HOW COUNTY AGENTS ANSWERED
137 questionnaires mailed 75 replies received (55% return)[a]	104 questionnaires mailed 59 replied (57% return)[a]
36 basic manufacturers	59 receive requests from farmers about pesticides
50 formulators	40 have enough information to answer requests
22 formulator-basic manufacturers	58 note seasonal variation in numbers of requests
8 others	27 say summer brings most requests
57 sell pesticides under brand name	21 say summer and spring bring most requests
37 sell pesticides nationally	9 say spring brings most requests
34 sell pesticides regionally	16 receive 0-250 pesticide inquiries a year
49 export pesticides	19 receive 250-500 pesticide inquiries a year
15 have some exclusive franchise dealers	12 receive 500-1000 pesticide inquiries a year
42 have some control over consumer prices	11 receive over 1000 pesticide inquiries a year
48 companies have salesmen selling throughout the year	59 specify the type of chemical to be used
13 employ salesmen with no college training	42 will give directions for preparing formulations
40 employ scientifically trained salesmen	25 mention company and brand names to farmers
29 share advertising costs with dealers	44 have confidence in accuracy and honesty of information from manufacturers
20 share advertising costs with distributors	33 will give information from manufacturers to farmers
53 maintain technical service department	
[a] Three companies replied but did not answer the questions because of changes in company policies.	[a] Answers received from county agents in 38 states and Alaska and Puerto Rico.

One basic manufacturer says the number of franchised dealers will increase and that when they do many of the industry's problems will be thereby solved. Fifteen companies in the Ag and Food survey say they have some exclusive franchise dealers at present.

There are some other ways for bypassing the system, such as that enjoyed by a group of large tomato growers in California. They have pooled their buying power to ask for bids as a block (bids including chemicals and application). Despite the fact that they demand individual billing and individual application (when the grower wants it), they are still able to beat the market. A technical service representative for one national basic manufacturer feels that the industry should be opposed to this practice. As he puts it: "One way to stop this practice would be to cut off technical service to these people. . . ."

Closely connected with the subject of pricing is credit and consignment. This, next to price cutting, was the most frequently mentioned problem. One formulator said: "Some basic manufacturers of pesticides are endeavoring to handle credit risk for all succeeding steps down to the farmer. This can only be successful when the farmer is paying more than he should."

Technical Service—the Key?

The quality of technical service offered by an agricultural chemical company can be just as important from the sales angle as its prices and the quality of its products. In the Ag and Food survey only 18 respondents admitted that they do not maintain a technical service department—probably others were able to answer this question affirmatively by interpreting the term rather loosely.

In the West, it is particularly true that technical service to the grower is the key to marketing practices. A good share of it comes from county agents and experiment stations. But basic manufacturers in that area provide the bulk of the service that comes from private organizations.

Another growing trend in the technical service picture in the West is the community of interest between grower and processor. Many of California's farm products are contracted for at the beginning of the season by the processor. This is true for vegetables for canning, sugar beets, grapes, probably all of the fruits and nuts, and many other crops. In some cases the contracting organization is a marketing co-op; in others, private processing organizations. Most of these dictate pretty strongly to contracting growers the pesticide and fertilizer practices to be followed. Normally, the technical service representatives of the agricultural chemical companies do not deal directly with their opposite numbers in the processing organization. Growers know what their contracts permit and the technical field representatives prefer to deal with growers. Typical of these organizations is the walnut co-op, which draws up its specifications for pesticide formulations each year and invites bids. It is generally able to buy DDT at 10% below distributor list. Groups such as the San Joaquin Valley Hay Growers Association have staff entomologists, and members do only what they recommend.

To sum it all up in a general way, Ag and Food's survey indicates that to sell pesticides, the most important thing is expert scientific advice. The advice may come from the experiment station through the county agent, it can come from a company representative, or it can come from food processors. In this respect, marketing of agricultural chemicals can be compared to marketing of drugs and pharmaceuticals—it all starts with the scientifically trained advisor. In the field of human health he's called a physician. In the field of agricultural health and prosperity he's called a county agent or an entomologist or a technical service representative. The man who sells to the consumer is a druggist, but in agriculture he's a dealer. However, this is one of the spots where the comparison weakens, for the dealer has distance to travel before he matches the druggist on a business or professional level.

In the drug industry, the salesman is called a "detail man." He "sells" the physician on the value of his company's products; he provides the physician with a great deal of helpful information about drugs and pharmaceuticals. Another weak spot in this analogy is that in the agricultural chemicals industry the survey indicates that the salesman is not so well placed with respect to the county agent.

Answers to the questionnaire have been tabulated on punch cards. Ag and Food will make correlations of answers to specific questions from those who write on company letterheads. All questions were answered anonymously