

profile...

Five brothers who built a thriving business in pest and weed control feel that roadsides are the major market for weedkillers—a market that could be increased 10 times its present size

ALMOST ANY good sales executive is proud to report a doubling or tripling in sales over a decade's time. A 1400% increase would really make him beam. Yet, while that's nearly unheard of, it's just the record some Binghamton, N. Y., brothers have put together. From \$31,000 in sales in 1947 to about \$422,000 this year is McMahan Brothers' story. Their stock in trade: application of agricultural chemicals—specifically weed, brush, and pest control.

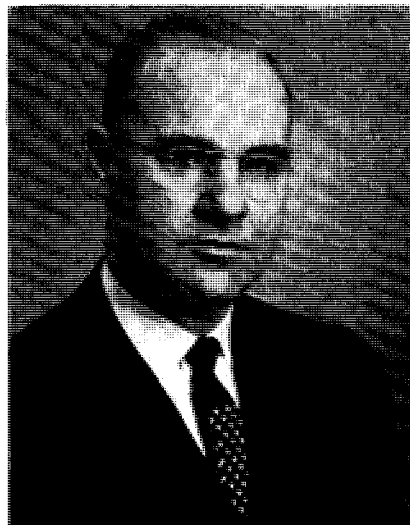
The success story is the story of the brothers themselves. It starts with Bob, the youngest, who became interested in and bought a local exterminator business. Date: 1938. A few years later, with the various brothers busy with World War II, the firm was held together by the senior McMahan—the brothers' father—until Bob's return. Later, although each had a successful career in other fields as distant as aircraft manufacture and radio-TV, four other brothers joined. John and Paul came in 1945, Ray next, and Tom still later in 1954. A sixth brother is a priest.

Actually the weed and brush control end of the business started only in 1951. Yet today it's the major part—accounting for some 55% of the current sales dollar. Activities are centered in the Northeast, particularly New England, New York, New Jersey, and Pennsylvania.

The McMahons talk about their pest control activities as "structural pest control." It consists of five parts: general insect control, rodent control, termite control, fumigation, and mosquito control.

The brothers owe much of their success to an insistence upon doing things properly. They've designed vehicles that can spray as much as 12 times the quantities put out by machines widely used today. Currently, the

firm has 28 vehicles equipped for spraying. They include 16 special ones with dual controls and dual sprayers to handle both right and left sides in any conceivable situation.



The President . . .

Paul McMahan

Use of Pesticides Is a Preventive

This is quite a change from the first post-World War II days, when the brothers had four pieces of war-surplus equipment—namely two jeeps and two small panel trucks.

Growth started with the brothers' literally drawing names out of a hat to decide who would call on whom. They not only had to design their own equipment, but also to find out the hard way about credit, how to sell, and what to sell. When they first went into roadside spraying it took them only a short while to decide that the only way to handle roadsides was

with blanket applications. A 100-mile test survey convinced them. Through today, they feel this method is far cheaper in the long run, and they recommend three sprays a year in areas comparable to southern New Jersey, two in areas like northern New York.

The firm sprayed only 15 miles of roadside in 1952. One year later the figure was 10,952, while by 1954 the number of miles of roadside sprayed with herbicide jumped past 30,000. In 1955, it hit a record of 40,562 miles. The job was so well done by that time that many areas which needed three applications in 1955 cut back to two in 1956—and very satisfactorily. As a result, McMahan experienced a drop-off to 31,792 miles in 1956 because of previous sprayings; this year brought a slight rise to 31,870 miles.

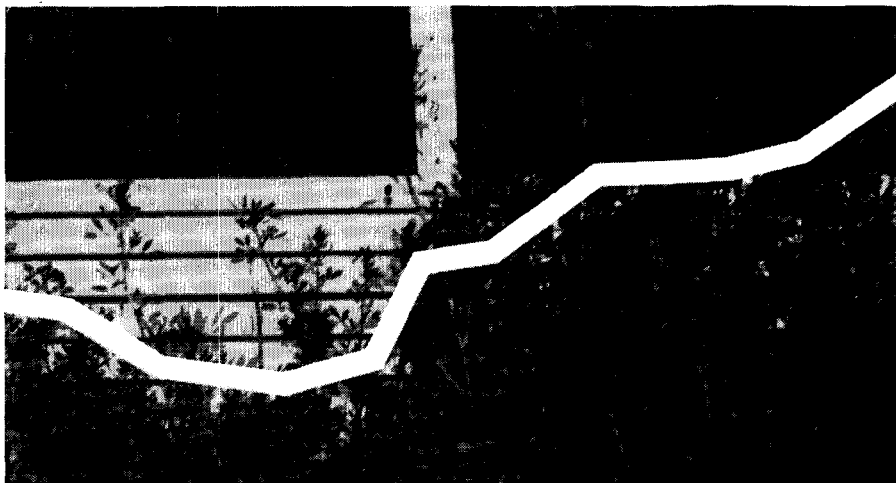
McMahan Brothers feels that New York State typifies the current situation nationwide. "Only about 20% of the roadside spraying that should be done is being done," is the way one puts it. Many of the smaller towns and communities have spray equipment, but don't really have the know-how or manpower to do the job correctly. There is nothing more discouraging, says McMahan, than to see a trial one-drum shipment one year later rusting away, only half used. Yet that is the report from many small towns, where "We didn't get time this year," is the all-too-common reason.

With proper know-how, the brothers say, there is no trouble from complaints of overspray, too much browning, or the other potential headaches. They cite their experience in Sullivan County, N. Y., where they have sprayed the entire 2000-mile county system for several years without a single complaint.

The McMahons strongly feel that the major market for weed and brush chemicals is on roadsides. To illustrate, one says there is not enough material produced in the United States today really to dent the highway programs where treatment is so vitally needed. "We're doing a good selling job, but the surface hasn't really been scratched yet." Most states now realize that cutting weeds and brush is expensive, and that if chemicals can be used to prevent unwanted growth, cutting is unnecessary.

They point to a few outstanding successes as examples of what can be done. McMahan Brothers sprays all roads in Broome County, N. Y., as part of a general health and safety program. This gets rid of poison ivy and ragweed, as well as brush.

Last year they handled the New York Thruway, over 400 miles from



In a Washington State test, sweet clover responds to moly fertilization with yield of 1.5 tons of hay per acre (area at right). Control area (left) yielded only 0.7 ton per acre.

(Photo courtesy State College of Washington).

Average yield or high production? Moly may make the difference

Moly can give striking increases in yields, even on land farmers thought was "good enough"

During the past few years agronomists and many farmers have witnessed the dramatic upturn of crop yields when small additions of molybdenum were made to moly-starved soils. These results have been widely reported, and today the more obvious symptoms of moly-starvation are quickly recognized by most county agents.

But how about the much larger areas where moly-deficient soils might be described as undernourished rather than starved? Here moly can make the difference between average yields, average quality, average profits and high yields of premium quality crops that mean extra income.

At the present time these areas of potential response to moly treatment are known to include large parts of the eastern U.S. and much of the arable land of the Pacific Northwest. They take in many productive farms whose owners, lacking a standard of comparison, are reasonably satisfied with present yields.

In these areas, tests by experimental stations and growers alike have established that moly applications can boost yields by 12 to 93%. Although such improvements are not perhaps as spectacular as in moly-starved soils, they have already added to the profits of individual farmers. Broad-scale treatment of these undernourished soils can

contribute substantially to overall farm production.

How Moly Works

A fact that has emerged from many studies of micronutrients is that moly is essential to nitrogen fixation. Legumes require moly for the fixation of atmospheric nitrogen by the bacteria in their root nodules. All crops need it to reduce nitrates to nitrogen—the first step in protein synthesis.

When there isn't enough available moly in the soil to satisfy plant requirements, crops literally starve to death (as in the case of serious, visible deficiencies), or achieve only a fraction of their potential growth (as in the case of many fields with "normal" productivity).

On the other hand, small amounts of moly have given both substantial increases in crop yields and marked improvement in quality to many farmers who were once content with fair to average production. In many cases alfalfa has a higher protein content when "normal" fields are treated with moly. Cauliflower runs to large size, more succulent flavor.

Consider the effect of moly on a typical few of the 30-odd crops for which responses have been reported:

Alfalfa—In field tests in New Jersey, Dr.

(Advertisement)

Harold J. Evans of Rutgers University obtained an average increase in yield of 13%, marked improvement in protein content. In field tests in Spokane County, Washington, Dr. H. M. Reisenauer of the State College of Washington found that treating molybdenum deficient fields with moly increased yields an average of 40%.

Melons—A Virginia grower reports that with moly treatment he gets an average of 7 runners per vine with each runner bearing a large melon. Untreated plants bear fewer runners, much smaller fruit.

Peas—In eastern Washington and northern Idaho, where both dry edible and seed peas are a major crop, commercial use of moly is producing more peas per pod, more pods per vine. And vines are longer, easier to harvest. Yield increases in commercial tests have averaged 63%. Many farmers realize a return of \$10 on each dollar invested in moly.

Cauliflower and Lettuce—Growers on Long Island and in upstate New York, in Rhode Island and mid-New Jersey report more vigorous cauliflower plants with heads of better quality. Color and leaf structure of lettuce improved. Yields were consistently higher than for untreated fields.

Testing is Easy

Although crops vary in their moly requirements and responses vary with soils, there is one sure way for a grower to find out whether he can increase the yield and quality of a particular crop on a particular soil: run a field test. It's easy to do.

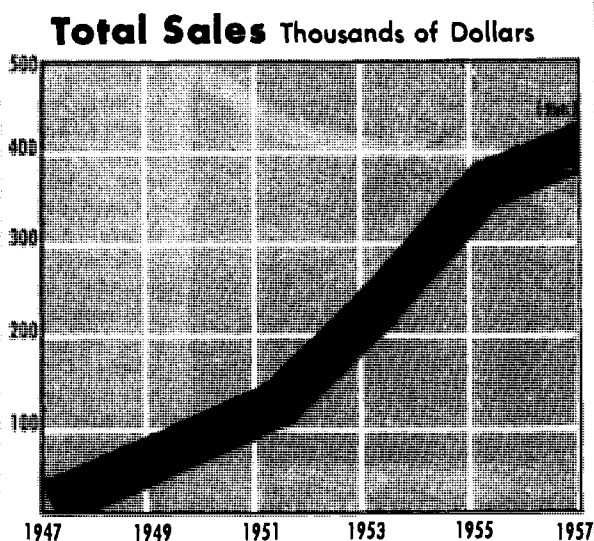
A stock solution for such tests is made by dissolving one ounce of sodium molybdate in one gallon of water. For vegetable crops, select and mark one or more rows through the center of the field. Mix three cups of the stock solution with one gallon of water and apply to the test rows, using about a quart to a 250-foot row. Compare the test rows with untreated rows every other day. Check yields and quality against untreated areas at harvest.

For legumes, lay out a test plot 10 yards square in a location that will make it easy to compare with untreated soil. Follow the usual fertilizer plan, but do not use nitrogen on either the test plot or the control areas. Spray the test plot with three cups of stock moly solution to a gallon of water. This may be done at the time of seeding, or to an established stand. Because increases of 25% or less are difficult to evaluate visually, clipping tests should be made.

For detailed information on the handling of moly test plots write Climax Molybdenum Company, Dep't. 44, 500 Fifth Avenue, New York 36, N. Y.

McMahon Bros.

From 15 miles of roadside sprayed in 1952 to more than 30,000 in 1954 is only part of the success story of this weed, brush, and pest control firm.



Harriman to Buffalo. "We did it in less than three days, but could easily have done it in only one if necessary." To their knowledge, they made the only roadside insect control application in the state—spraying a 30-mile stretch for the European Chafer in '56.

The brothers won't talk much about their sales organization and selling plans, since they are now in the midst of a new program. Sales headquarters

are nominally in Binghamton—but in practice they are shared with Scranton, Pa., and Tenaflly, N. J. "We all get out and work in the field; no one in the outfit just sits behind a desk," is the operating philosophy each shares.

Paul, now president of the company, points out that, "We had to make a go of it; there are too many kids to feed not to." He has only three. But Bob, who is secretary-

treasurer of the corporation and in charge of weed and brush control sales, has 11. A close second is Tom with nine. He runs weed and brush control operations, and is a vice president. John has eight, and is responsible for equipment and trained manpower. As vice president in charge of operations, he gets around by flying his own four-seater.

Ray was president until November 1956, when the five brothers, sensing a real need for other qualified bidders on competitive contracts, decided that Ray should start a separate operation. He did just that, and now operates as the American Vegetative Engineering Co. in Binghamton. "And we really compete. He wouldn't give us the time of day in a business way, now."

The future seems more than just bright to McMahon Brothers. They feel that the amount of roadside chemicals now sprayed annually over the United States could be increased by a factor of 10. Also, they consider forests an untapped nonfarm outlet for pest and disease control applications.

As Paul notes, "To us, the use of herbicides and pesticides is strictly a preventive rather than a corrective. The mistake many people have made is in failing to use the spray program as a maintenance tool, rather than to correct an already bad situation."

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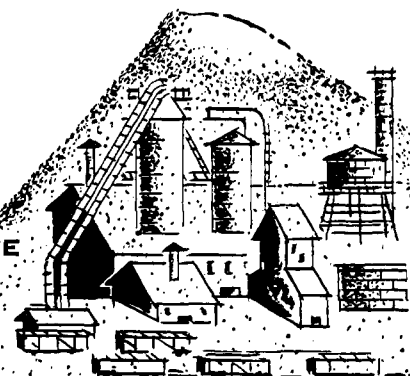
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