

The Renk brothers operate one of the most successful farms in Wisconsin on the thesis that production labor must be cut to a minimum

MAKING A SUCCESS of a large farm hinges on a great many good farm practices—including use of the right amount of fertilizer and other agricultural chemicals at the proper time. Coupling these practices with very productive land to begin with, the W. F. Renk & Sons Farm near Sun Prairie, Wis., has earned a position among the most successful farms in that state.

Family Corporation

One of the first family corporation farms in the United States, the Renk farm spreads over 2000 acres of southern Wisconsin real estate—and all but 20 of those acres are under cultivation. The farm is owned and operated by three brothers: Walter F. Renk, president, Wilbur N. Renk, vice president, and Robert F. Renk, secretarytreasurer of the corporation.

Until 1957, the Renk operation had three divisions:

• Hybrid seed corn and certified seed grain, which accounted for about half of the farm's income.

• Beef cattle and hog feeding-200 steers and 2500 hogs, making up about 40% of the farm's income.

• Dairy farming, making up the last 10%.

In 1957, the farm began merchandising stock and feeder cattle. As it gains momentum in coming years, says Walter Renk, this new division will probably account for a fairly sizable percentage of the farm's business.

Of the farm's total acreage, 801 acres are devoted to corn (which averages 100 bushels yield per acre), 283 acres to grain, 198 acres to pasture land, and 210 to growing alfalfa. On all this land, the Renks use anhydrous ammonia, ammonium nitrate, liquid fertilizers, and granular mixed goods. How much of each is used, and when and where, is determined by annual soil analyses made by the University of Wisconsin's college of agriculture (which all three brothers attended), about 15 miles southwest of the farm. According to Renk, he and his brothers always go along with the school's fertilizer recommendations.

Corn Fertilization Heavy

The Renks' corn fields, which are some of the most consistent high yielding ones in the state, according to the university, used about 150 tons of chemical fertilizers last year, in addition to organic fertilizer. And fall application accounts for just slightly less than 40% of the total tonnage used. The Renks use 12-12-12, 0-10-20, and 0-20-20 for broadcast fertilization of corn.

On the rest of the farm, fertilizer use amounted to about 76 tons. Grains (wheat and oats) are supplied with 6-24-24 and ammonium nitrate. About nine times as much mixed goods as ammonium nitrate is used there.

Wilbur N. (left) and Walter F. Renk, vice president and president, respectively, concentrate on their dairy herd during the winter months



64

Pastures get nothing but mixed fertilizers, including 0-12-36, 0-15-45, and 6-24-24. These same mixed goods are used on the Renks' alfalfa fields, with the addition of boron.

Among Wisconsin farms, the Renk farm leads the pack in fall fertilization. Walter explains it this way. Because of the varied operations on the farm, and its size, waiting until spring would probably get the brothers mired in the spring rush, and force them to wait for delivery. Also, they have found by experience that spring fertilization to the extent required for high yields leads to soil packing-a result of running the necessary equipment through the fields. But in the fall, packed soil is not the problem it is at planting time. Even fertilizing on frozen soil, the Renks have found, is effective. This latter point was borne out in some 1957 tests at the University of Wisconsin.

Custom Application Used

All of the Renks' fertilizer application is done on a custom basis. Walter says that it is cheaper to have it done this way than it would be for the farm to buy the fertilizer, ship it into the farm, store it, and then apply it. The Renks put out bids for their application work to local applicators, and bidding is heavy. Renk says they have no complaints about custom application.

Agricultural Chemicals

So far, says Renk, the farm has not been troubled too much by insects and weeds. The Renk farm is routinely sprayed—aldrin on corn, amino triazole for quack grass control, and 2,4-D on all of the grain fields. They use no granulars or dusts, although these were used in the past when the corn borer was more of a problem than it is now in southern Wisconsin.

For seed treatment, corn gets Pyran and small grain is treated with captan. The farm has its own pesticides spraying equipment.

In its early acceptance of herbicides, the Renk farm was a pioneer Wisconsin farm in using pre-emergence sprays. As a matter of fact, notes Renk, today's acreage is cultivated only sparingly. Spraying, he claims, is very effective.

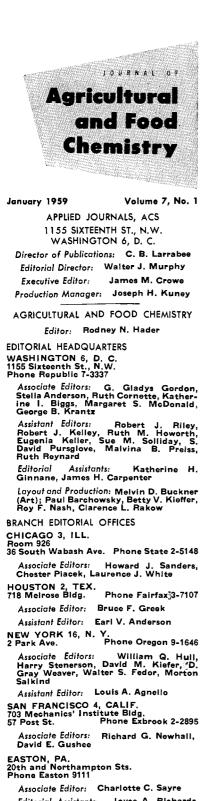
Despite being the first in the state to use pre-emergence treatment, and finding chemical weed control effective, Renk feels that more research needs to be done on herbicides. And a good deal of this research should be on application machinery, he thinks. Right now, in his opinion, there is too much duplication in power units. Since the trend in his part of the state (as well as in other areas of the Midwest) is toward bigger land units, he feels bigger machines should be developed.

Another weed problem with which the Renk farm must cope is velvet weed. This weed is one of the more virulent ones found in the North Central states. Broadleaf control chemicals work—but not unless they are used at exactly the right time. Renk says that with careful timing, their farm has not had excessive trouble with the weed yet. But should the day arrive when weather prevents treatment at the right time, he can see some difficulties.

Labor Savers

The wise use of agricultural chemicals, Renk thinks—and his brothers obviously agree—is one of the best ways to get efficient farm production. The Renks' thesis in farming is to look constantly for ways and means to cut production labor; they have already managed to cut a great deal through use of machinery, fertilizers, and pesticides.

CHEMICAL Nomenclature	Number eight of the Advances in Chemistry Series Edited by the staff of Industrial and Engineering Chemistry
	CONTENTS
A collection of papers comprising the	Introduction
Symposium on Chemical Nomenclature,	Letter of Greeting
presented before the Division of Chemical	Some General Principles of Inorganic Chemical Nomenclature 5
Literature at the 120th meeting-Diamond	Nomenciature of Coordination Compounds and its Relation to General Inorganic Nomenciature
Jubilee—of the American Chemical Society,	Problems of an International Chemical Nomenclature
New York, N. Y., September 1951.	Chemical Nomenclature in Britain Today
11 papers, 112 pages.	Chemical Nomenclature in the United States
Paper bound \$3.00	Basic Features of Nomenclature in Organic Chemistry
	Organic Chemical Nomenclature, Past, Present, and Future
	Work of Commission on Nomenclature of Biological Chemistry 83
Published August 15, 1953, by AMERICAN CHEMICAL SOCIETY	Nomenclature in Industry
1155 Sixteenth Street, N.W. Washington, D. C.	The Role of Terminology in Indexing, Classifying, and Coding 106



Editorial Assistants: Joyce A. Richards, Elizabeth R. Rufe, June A. Barron EUROPEAN OFFICE

Bush House, Aldwych, London Phone Temple Bar 3605 Cable JIECHEM Associate Editor: Albert S. Hester

Advisory Board: Raoul Allstetter, Everette M. Burdick, Leland G. Cox, George K. Davis, George C. Decker, Leo R. Gardner, Joseph W. E. Harlsson, Lloyd W. Hazleton, William L. Hill, Allen B. Lemmon, Maurice H. Lockwood, Louis Lykken, George L. McNew, Olaf Mickelsen, Harvey K. Murer, Joseph A. Noone, J. D. Romaine, Warren C. Shaw, A. V. Slack, Hazel K. Stiebling, John C. Sylvester

Advertising Management REINHOLD PUBLISHING CORP. 430 Park Ave., New York 22, N.Y. (For List of Offices see page 60)

Farm Profile

IN THIS ISSUE, the editors of AG AND FOOD bring you the first in their new "Farm Profile" series. These staff-generated, staff-written articles will alternate on a reasonably regular basis with our popular Corporate Profiles.

Purpose of this new series is to bring to AG AND FOOD'S readers greater insight into the activities of the people and "businesses" that use agricultural chemicals, as well as those responsible for producing and distributing those chemicals.

We have frequently felt the desire—even the need—for a better understanding of who "the farmer" is, how he runs his business, what he thinks, and why. And we have long suspected that many of our readers who operate chiefly in an urban or suburban atmosphere must share this desire or need. Informal surveys have borne out this suspicion.

Our series will not attempt to portray the "average farmer." Such a person does not exist, and never has. But increasing specialization, the result partly of environment and partly of advancing technology, has brought about the emergence of a dozen or so major farm types. Our approach will be to profile at least one farming operation in each of these major categories.

Thus, in trying to show AG AND FOOD readers how modern farmers think, and how modern farms are run, we shall be talking about individuals and their activities. Useful as the statistical approach is, we eschew it; this approach is already being exploited—with increasingly beneficial results—by such organizations as the National Plant Food Institute, National Agricultural Chemicals Association, and some of the state universities. Single companies, too, such as Allied's Nitrogen Division and Doane Agricultural Service, have used it to good advantage.

But our aim will be to give a more detailed picture for each of a relatively small number of agricultural enterprises. The farms and farmers we describe may not always be the biggest or most advanced in their county, state, or farm classification. They will be representative, in a measure, of the farms in their chosen field of specialization, but they will not necessarily be "typical." They will, however, be among the leaders; all will provide evidence of what thoughtful planning and the application of science and technology are doing to remodel agriculture into agri-business.