

production rather than to bring more land into production.

ACP is not an annuity, either. At first, the Government shares the cost of conservation measures that individual farmers probably could not afford, but which are in the national interest. These practices are slow to bring in returns on the conservation dollar. But as the project becomes more self-supporting, the Government withdraws its interest and the farmer assumes responsibility for maintaining the project.

With world populations rising, planners must look to the land to produce more food. But there is only so much land available for cultivation. It is becoming more important to save the fertility in the land we already have.

Erosion is one of the land's greatest enemies. Each year erosion ruins land that could feed millions of mouths. The same goes for once-fertile soil. "Tired" land that once produced rich crops is now practically barren. Conservation practices must be put into practice to save these lands for the future.

The short range view for farm production appears bright, sometimes even too bright, when troublesome surpluses are threatened. But the long range look requires planning. Conservation goes above the interests of individual farmers who use the land. Those who will use it later, perhaps to produce much more food, must also be considered.

Selling the farmer on conservation isn't always easy. Initial costs of some projects are high and returns are not always immediate. In hard times, conservation practices are among the first to go.

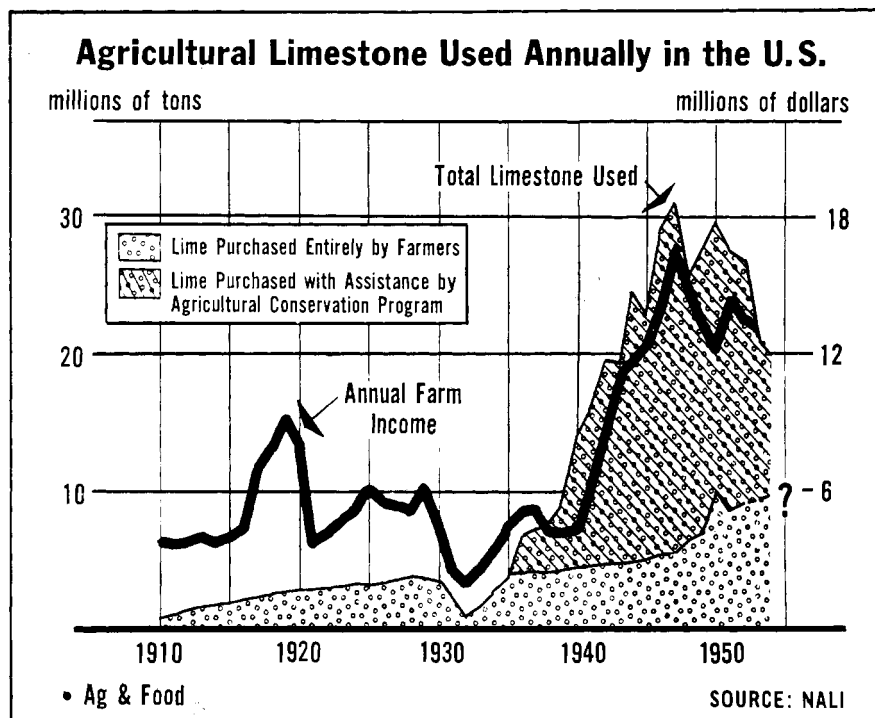
There to take up some of the slack will be the ACP. As the agency itself says, the 1955 ACP program has one purpose and one purpose only. It is to advance "the over-all conservation accomplishment of the nation."

Limestone Consumption

1953 cutback in Agricultural Conservation Program caused farm use of limestone to drop 25%

WHILE accurate data on 1954 consumption of limestone for agriculture are not likely to be available for several months, industry sources believe that a further drop occurred last year. Sales are off primarily because Agricultural Conservation Program funds have been tightened.

Nationwide consumption during 1955



is apt to go still lower. The Holland Amendment tacked onto the Agricultural Act of 1954, during closing hours of the 83rd Congress, now requires farmers to comply with all acreage allotments set up for their farms, if they are to be eligible for ACP payments. Farmers who grow wheat and corn for consumption on their farms are not likely to stay within allotments. Some sources estimate that over 50% of the farmers who normally qualify for payments will not be eligible this year.

Although the limestone industry hired more agronomists, more salesmen, and did more promotional work last year than at any time in its history, it can't seem to stall the downward trend. Consumption in 1953 dropped to 20.6 million tons, as compared with 27.3 million tons in 1952, according to the National Agricultural Limestone Institute.

The Secretary's office of USDA indicated in 1952 that only about 25% of the acreage needing lime was adequately treated in 1950—that 395 million tons would be required for initial treatment of acreage then in need of lime. Once this acreage has been adequately treated, annual maintenance would take 47 million tons. NALI gives much higher estimates: over 500 million tons for initial treatment, and annual maintenance of about 80 million tons.

Consumption Closely Follows ACP Appropriations

Agricultural limestone consumption has tended to follow rather closely the fluctuations in ACP appropriations. In fact, ACP is generally given much of the credit for building lime consumption by

farmers to its present level. Purchases by farmers on their own, however, have shown a steady increase, although the gains have not been spectacular.

So far, farmers haven't been encouraged to lime without government help, says an official of NALI. However, education itself is not the complete answer, if we are concerned about more closely approaching the goal which agronomists say we should be using. Until a better answer is found, the industry feels that ACP is the best, if not the only, way in which farmers can be encouraged to use the proper amounts.

NALI points out that the Extension Service has done an outstanding promotional job, in fact, better than anything the industry can or will do. From 1914 until 1936, when ACP began, practically every county agent in the eastern part of the nation advocated increased use of limestone. At no time during this period, however, did consumption exceed 3 million tons, and many times it went down to 1 million. ACP raised usage to 30 million tons shortly after it started.

Effect of ACP Tightening Has Been Widespread

In the Middle West, the decrease is due in part to tightening up by ACP. One effect of this action is to eliminate farmers who took advantage of ACP because they thought they were getting something for nothing. From a soil standpoint, the drop is not quite as serious as it might appear, because some inefficiencies in use are probably eliminated.

Midwest farmers in general are not convinced that lime will give them a

profit. There has been strong emphasis on cash crops in the past few years at the expense of forage and legume crops and cash crops like corn do not show startling results from use of lime. A lower profit margin on cash crops might emphasize the need for lime.

Limestone use has dropped in Wisconsin—from 2 million tons during 1946-49 to slightly more than 1.5 million tons in 1953. It is expected to drop again during calendar 1954, although other fertilizers were up about 4% during fiscal 1953-54. Wisconsin, to feed dairy cattle, has over two million acres of alfalfa, more than any other state. Alfalfa, like other legumes, is particularly sensitive to lime shortage, although lime applications do not give startling results as compared with some of the other fertilizers. Wisconsin needs about 20 million tons of limestone to bring its soil up to par and 2 million tons a year to keep it there.

In Ohio, stone must now be graded according to its neutralizing ability. Farmers are paid on the basis of how much neutralizing they have done rather than on the basis of tonnage used. This restriction hurts over-all stone consumption, but the total effect is to cut out much use of poor grade stone.

The Oklahoma ASC office indicated 230,000 tons of limestone were used during 1952 in the ASC or PMA program. In 1953 the total was about 130,000 tons. Estimates for 1954 have been set at 150,000 tons—a further slight increase is expected in 1955. Slight recoveries from the low point of 1953 are attributed to more flexibility in the Oklahoma ASC program.

In Oklahoma, which has passed through its third successive year of drought, income that otherwise would have been available for lime has been spent for livestock feed.

Decrease Is Not Entirely an Economic Problem

Soil chemists at the Florida Agricultural Experiment Station say the decrease in lime consumption is one that should have been expected. Since initial applications are generally greater than the amount needed to maintain soil reaction at the desired level, consumption has fallen off somewhat. A microbiologist says that in Florida the consumption-requirement lag has finally caught up with itself.

Florida experts say decreases there are also due to the effect liming has on minor elements, although bad crop years plus reductions in ACP payments have made it difficult for farmers to buy the necessary amounts.

In Texas, the decrease is due partly to economic and partly to technical reasons. Farmers have seen little value

from lime applied in previous years. Poor crop response has resulted from a lack of understanding about when and where to lime and what crops will give a good response. These factors have blocked increased use except under direct grants. Texas consumption during 1954 will probably equal that of 1953.

How much FHA can help the farmer use more limestone, in the face of ACP cutbacks, remains to be seen. [FHA was authorized by the last Congress to grant insured and direct loans for basic applications of lime and fertilizer, in addition to the installation of water facilities (AG AND FOOD, January, page 16).]

Pretesting Food Additives

Pretesting? Yes — but who will be the referee? MCA favors FDA, but opposes requiring specific approval

INCLUSION OF MANDATORY pretesting requirements for new food additives in any new food law changes now has the support of almost all food and food chemical manufacturers. The food industry has generally been in favor of such a requirement for some time, but it was not until Jan. 27 of this year that the chemical industry, as represented by the

Manufacturing Chemists' Association, committed itself and made a policy statement favoring mandatory pretesting of new food ingredients.

It may appear surprising that there could be any hesitation about using such a seemingly simple means of protecting the public from "poisonous or deleterious" substances in food, especially since all reputable companies carry out pretesting programs anyway. The trap lies, of course, in interpretation of test results. That it is impossible to establish absolute assurance of safety was clearly brought out by Henry F. Smyth, Jr., of Carbide & Carbon and Mellon Institute, at the joint meeting of the Commercial Chemical Development Association and the Chemical Market Research Association at Chicago Jan. 20.

Tests Cannot Assure Absolute Safety

The first stipulation for a hypothetical test to prove absolute safety is that the subjects be human, according to Smyth. The population sample must be large enough to include a representative portion of the population, the very young, the middle aged, the geriatric problems, those who eat freely whatever they want, the various food faddists, those who must consume a limited diet for financial reasons, and also those with each of a variety of defects and chronic diseases. While being fed food containing the proposed ingredient, each subject must be carefully observed for possible effects and detailed records kept, yet nothing must interfere with his normal daily routine. Similar observations must be made on the subjects' children and grandchildren, with matings both within

Difficulty of negative proof in food additives pretesting may encourage blanket disapprovals, says Henry F. Smyth, Jr., Carbide & Carbon (left), shown at the CCDCA-CMRA meeting with Lawrence Coleman, Allied Chemical & Dye Corp.

