

# This year's soil tests to call for more lime

BY JOYCE BUYP  
Staff Correspondent

YORK—Ever heard of SMP?

That's a brand new, and more accurate, lime test that Penn State has begun using to sample acidity levels in the state's agriculture soils.

SMP is named for Shoemaker, McClean and Platts, three Ohio researchers who developed the improved soil acidity testing method. Penn State soil fertility specialist, Doug Beegle, briefed growers attending the York County corn clinic on the improved accuracy of the new testing procedure.

Calling lime testing the "most important test of all," Beegle emphasized to the grain producers that, unless soil acidity levels are at correct levels, crop aids, such as pesticides, herbicides and fertilizers, might be a waste of the farmer's dollars.

Former tests, while popular and helpful in determining acidity, still had their problems, because researchers now know that the tests were frequently too low in their liming requirements.

Beegle allowed that the new SMP test may still be slightly deficient in lime estimates, but says that it's much more efficient and accurate than former methods.

He warned farmers to expect this year's tests to call for greater tonnages of lime, up to as much as 39 percent more than previously called for, especially on soils with a pH level of 7.0 or less.

Soils that have been limed on a regular basis, however, should not show such a dramatic need.

That was just one of the cropping recommendations based on recent research projects at the University.

Soil fertility specialists are also suggesting that corn growers begin applying higher amounts of phosphorus in starter fertilizer, to get seedlings off to a rapid-growth start.

Beegle recommends a 10-30-10 starter product, applied in a band. Up to 90 pounds of plow-down phosphorus could also be incorporated in a band-type application. With liberal quantities of

phosphorus within easy reach of seedling roots, very rapid growth is promoted and less fixation of the nutrient occurs.

While croppers and researchers alike have been calling for some type of dependable test for nitrogen levels, Beegle admits that accurate test for nitrogen is "not too close."

Recent studies, however, show growers may be able to cut back slightly on expensive nitrogen additives, while still maintaining high-yield stands.

Corn-following-legumes is an especially wise rotating program, since sods and soybeans may leave enough residual nitrogen so that little more than a starter band of pop-up fertilizer is needed. Wise use of livestock manures, incorporated at the proper time to minimize nutrient losses, is another fairly inexpensive nitrogen source.

Urging that farmers continue, and even intensify, their use in soil testing, Beegle warned that soil nutrient carryover is especially uncertain in dry years, such as the conditions that settled over much of the state last year.

## Nitrogen from Legumes

	Yield Goal (Bu./A)†		
	100	125	150
—Nitrogen (lbs./acre)—			
First year after good alfalfa sod (greater than 50% alfalfa)	100	130	140
Second year after good alfalfa sod (greater than 50% alfalfa)	60	60	60
First year after medium alfalfa sod (25-50% alfalfa)	80	100	100
First year after poor alfalfa sod (less than 25% alfalfa)	60	60	60
First year after clover or trefoil sod	60	60	60
First year after soybeans	40	40	40

## New Nitrogen Recommendations for Corn

	Yield Goal (Bu./A)†					
	100	120	130	150	160	200
Continuous corn grain	100	120	130	160	160	200
Continuous corn silage	120	120	150	160	180	200
First year after good alfalfa sod (more than 50% alfalfa)	20	60	20	100	40	140
Second year after good alfalfa sod (less than 50% alfalfa)	60	120	90	160	120	200
First year after medium alfalfa sod (25-50% alfalfa)	40	120	50	160	80	200
First year after poor alfalfa sod (less than 25% alfalfa)	60	120	90	160	120	200
First year after clover or trefoil sod	60	80	90	120	120	160
First year after soybeans	80	120	110	160	130	200

† Yield goals for silage are 17, 21, and 25 tons per acre respectively.

## Spring fertilizer outlook appears rather rose

CHICAGO, Ill. — The 1981 outlook for U.S. agriculture and its supplier, the fertilizer industry, is optimistic, an industry observer pointed out here Tuesday at the annual meeting of The Fertilizer Institute.

L.L. Jaquier, group executive for the agricultural chemicals group of W.R. Grace & Co., noted a number of favorable economic signs for U.S. farms and fertilizer businesses.

The principal factor in the fate of agriculture in any year is crop prices, and this factor is forecast to be exceedingly good, he said.

"Projections continue to point to

highly favorable prices for farmer's crops in the current crop year," he added.

Corn prices are projected at \$3.43 per bushel - 37 percent higher than a year ago.

Soybeans are forecast at prices 26 percent higher; cotton 25 percent higher - and U.S. wheat, currently in ample supply, has been forecast as high as \$4.05 per bushel average, a six-percent boost over 1979-80 farm averages, Jaquier indicated.

All this leads to a projected net farm income increase of 14 percent by the end of the current harvest year - or a real dollar increase of

four percent for American farmers, based on 1972 dollars, he observed.

For the fertilizer industry, this points to a strong season, because, he noted, if projects hold, farmers will be planting up to nine million acres more of major cash crops than they did one year ago. Those same crops account for at least 82 percent of total U.S. fertilizer use.

Based on this scenario, Jaquier indicated he expects U.S. nitrogen fertilizer consumption to increase

by at least three percent and phosphate fertilizer use by about six percent by June 30, 1981.

The outlook isn't all roses," he was quick to point out.

Factors which could depress or counteract favorable signs include high interest rate pressure for farm loans, a potentially "compressed" season for purchase and use of farm production items (such as fertilizers), international uncertainties for U.S. agricultural export sales; and U.S. economic

instability, including the continuing pressure of costs in farm and fertilizer production alike.



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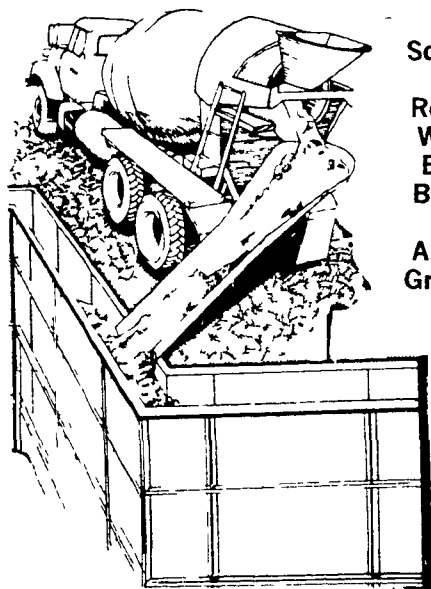
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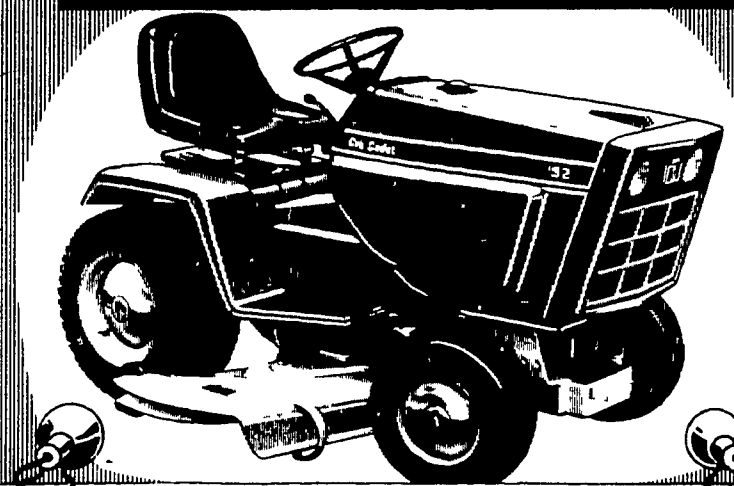
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