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(For Branch Offices see page 148)

## N, P, K? or N, P<sub>2</sub>O<sub>5</sub>, K<sub>2</sub>O?

ELEMENTS OR OXIDES? This question, although not a new one, has recently become a principal topic of conversation in fertilizer circles. It is, in fact, the subject of one of the hottest arguments in the industry's history.

Stated more fully, the question is whether or not state laws should be changed to provide that guarantees of fertilizer nutrient content be expressed in terms of the elements—phosphorus and potassium—instead of their oxides. (Nitrogen does not enter into the question now; the elemental basis was adopted for nitrogen years ago.)

The question parallels, in some respects, those raised in connection with proposed simplifications of the calendar, or a possible switch to the metric system of weights and measures. Few doubt that the proposed end result would be a simpler and more effective system, but many doubt that the benefits promised are worth the headaches that might be incurred during the transition period.

Looking at the matter from the angles of scientific accuracy and practical simplicity, we think there is no question but that the elemental basis is preferable. But viewed strictly on the basis of simplicity, of course, the elements vs. oxides question is hardly one to stir up a fuss. Even many of those who are now fighting the proposal to switch systems grant that the elemental basis is the simpler and more logical of the two; some of them openly wish that the elemental basis had been adopted back in Fertilizer Year One.

Now that the oxides basis has been in use for so long, however, and has been incorporated into so much of the industry's technical and sales literature, the problems presented by a change-over appear to many people to be simply too great in comparison with the advantages inherent in the elemental system.

The change, if and when it comes, will doubtless cause some confusion—how much will not be known until the transition is actually undertaken. But as one expert in the field points out, a good deal of confusion already exists because speakers or writers often, for the sake of convenience, express verbally as N-P-K ratios which have been mathematically calculated in terms of N-P<sub>2</sub>O<sub>5</sub>-K<sub>2</sub>O. Confusion of this kind, at least, should be ended by a switch to elemental basis.

With some confusion already existing, and some likely to be created during transition, any change of basis for guarantees is not likely to be a simple change from black to white. Rather it promises to be a change from existing shades of gray through perhaps several others, until the transition is complete.

This change may be inevitable. A sampling of opinion (admittedly an unscientific sampling) indicates that most disputants on both sides of the question feel the switch is sure to come eventually. If it is, and perhaps even more so if it is not, the best hope of minimizing untoward effects on the industry must lie not in the exchange of volleys at a distance, but rather in open discussion at close range.

The fertilizer industry, the associations which represent it, and the state and federal agencies whose work is so important to its progress have accomplished much through cooperation in the past. Surely the cooperative approach holds more promise of a successful solution to the oxides vs. elements question than does the factionalism that now appears to be developing.

According to the USDA's preliminary report on plant food consumption for 1955-56 (page 85), the fertilizer industry is not exactly leading from strength just now. Consumption last season is reported to have been down both in terms of total tonnage and in primary nutrient content from the levels of 1954-55—and consumption *that year* was hardly considered a cause for rejoicing.

Thus, in the face of difficulties that call for the best efforts—and concerted efforts—of all groups concerned with fertilizer use, it must be considered wasteful to dissipate energy in fighting over armaments for use in the main battle. All the groups have a common goal: enabling the farmer to improve his lot through more extensive and more efficient utilization of plant foods. In discussing alternative ways to achieve it, the goal itself should not be lost to sight.