and not nitrogen is the most costly plant food element, on the basis of the prices quoted.

The wholesale seaboard quotations on August 29, 1932, for several fertilizer materials were as follows: Sulfate of ammonia in 200 pound bags, $22.00 per ton; muriate of potash in bags, $3.29 per ton; cyanamid in bags, $0.975 per unit. Superphosphate was quoted in the 16% grade only at $8.00 per ton in bulk. Adding $1.75, which according to the quotations for other materials appeared to be about the average charge for bagging, we get a cost of $9.75 per ton. According to these prices, unit costs of nitrogen were $1.06 in sulfate of ammonia and $0.975 in cyanamid, while phosphorus and potassium cost $1.39 and $0.85 per unit, respectively.

From these data it is seen that phosphorus is again the most costly plant food element, followed in order by nitrogen and potassium.

Evidently many of us have been in error in our method of calculating the relative costs of the various plant food elements. We have doubtless fallen into this mistake through the practice of expressing the nutrient content of mixed fertilizers in terms of nitrogen, phosphoric acid, and potash. In order to present the relative costs of the plant nutrients on a scientifically correct basis, we should base our calculations on the elements themselves, even though this may lead to some temporary confusion in the minds of farmers and other purchasers of fertilizers.—C. E. MILLAR.

THE USE OF KAINITE FOR THE CONTROL OF POISON IVY

The herbicides conventionally used for the destruction of poison ivy are commercial sulfuric acid which is poured on the crown of the plant at stated intervals until the plant dies; or the plant may be killed by saturating the soil adjacent to the crown with a strong solution of caustic soda, or of salt. Poison ivy can also be killed by spraying the foliage. Stone successfully used 2.5% solutions of either arsenate or arsenite of soda applied at a rate equivalent to 1,600 gallons per acre. Grant and Hansen state that the plant is readily killed by a 37.5% solution of common salt. Kerosene is used, and Fiske mentions waste oil from garages.

Sulfuric acid, caustic soda, and salt, the latter to a less extent, are destructive to plant life and for a considerable time after they have been used the soil remains barren. Arsenate and arsenite of soda are powerful herbicides and very poisonous to animal life. Kerosene and waste oil are inflammable and there is always danger from fire following their use. Furthermore, they can not be applied to poison ivy growing upon or against arboreal plants because they will penetrate the tissues of the stem and branches and cause disturbances in metabolism.