TAXING THE AIR FOR INCREASED FOOD PRODUCTION.¹

J. G. LIPMAN.

Wherever plant food is a limiting factor in crop production, acre yields are affected by the cost of commercial fertilizer as well as by the cost of land and labor and the market value of the crop. Cheap land and a limited supply of labor have, in the past, served to increase the size of the farm rather than the acre yield. In recent years, however, certain changes have come into our economic life, and these changes will compel, if they are not already compelling, a substantial readjustment in our methods of soil treatment.

As measured by European standards our land values may not be inflated, but they fluctuate now at levels much higher than those which prevailed in the memorable year of 1914. An acre of land that costs $300 cannot be neglected without financial discomfort to the owner or tenant. It must yield a return of $20 to meet fixed charges, and it must yield other returns to provide a living for the farmer. High-priced labor tends to become unprofitable under extensive and slovenly methods of production. On the other hand, the higher cost of plant food is more than offset by the increased value of farm products. The diversification in cropping now gaining momentum in certain of our agricultural districts, the increased acreage under crops of high commercial value, the manufacture of secondary agricultural products, and the elimination of the middleman must all tend towards more intensive methods of tillage and cropping.

The readjustments just noted are forcing us to make a careful scrutiny of our plant food resources, to acquaint ourselves with the

¹ Presidential address before the twelfth annual meeting of the American Society of Agronomy, Chicago, Ill., November 10, 1919.