

conclusions in the following words. "The most striking results we observe are (1) that manuring with ash constituents alone increases the production of nitrates in the soil; (2) that the bigger crops grown by ammonium salts or sodium nitrate, with ash constituents, are followed by an increased production of nitrates; (3) that the use of an organic manure like rape cake or farmyard manure is attended with a large increase in the production of nitrate, even after the first active stage of nitrification is long past.

The concluding chapter is on the "Nitrification of manures." Salts of ammonium (chloride or sulphate) are of nitrogenous fertilizers the most readily nitrified in a soil. Carbonate of lime assists most markedly in this process and Mr. Warington is of the opinion that lime or other salifiable base is deficient in those soils upon which ammonium salts do not act beneficially as a fertilizer. It would appear that guano is very easily nitrified. Müntz and Girard place it in this respect next to ammonium salts; "following guano come green manures (lucerne and lupines,) which compared with other forms of manures, appeared to be especially active in clay soils; the third class includes dried blood and meat and powdered horn; far below these stand poudrette, wool and leather."

Lecture 6. Drainage and well waters. This lecture has for its subject the consideration of the chemical composition of the drainage and deep well waters at Harpenden, as well as a detailed account of experiments on the movement of water in soils, with a discussion on the results obtained therefrom. As the wells are all sunk in the chalk, which lies comparatively close to the surface at Rothamsted, their waters will not be altogether comparable to those from wells on Canadian farms. A detailed account of this work will not therefore here be necessary. To the chemist however, if not to the practical agriculturist these data are intensely interesting and exceedingly valuable.

We should very much like to see these lectures published in Canada in order that the agriculturists throughout the Dominion could obtain with facility copies for study. All progressive farmers must now make themselves conversant with these and kindred subjects, and those who wish to be thoroughly posted to date on the important question