media, and in pea extract become converted into „bacteroids" as well as straight rods Nitragin does consist of the tubercle organism, and as a result of the inoculation of either seeds or soil with it, tubercle formation takes place. Crossing of kinds supplied for different genera and species is quite successful within the tribe *Vicieae*. In order to test the possibility and conditions of direct infection of the roots, seedling peas, starting both before and after germination, were grown in sterile tubes, by which means the whole plant was kept under control. This method showed that direct infection of quite young radicles is tolerably certain, also of older roots, provided the conditions under which germination occurred are maintained after infection.

In order to secure infection it is not necessary that the organisms should pass through the soil, and the age of the root-hair at the time of infection seems to be without effect upon the result. An accumulation of CO_2 round the roots is not the cause of failure in direct infection.

The addition of nitragin to soils rich in nitrates appears to be inadvisable, but a supply of it to soil poor in nitrates results in an increased yield, though better results are obtained if instead of nitragin, nitrates be added to the soil.

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Original-Berichte aus botanischen Gärten und Instituten.

Der Botanische Garten der Kaiserlichen Universität zu Jurjew (Dorpat).

Von

Professor **N. J. Kusnezow.**

VI. Acclimatisations-Versuche.

In einer von meinen früheren Abhandlungen*) habe ich auf die wichtige Bedeutung des Jurjewschen Botanischen Gartens

*) Vergl. Bot. Centralbl. 1897. Nr. 12, II. Staudenquartiere und im Freien cultivirte Gehölze, p. 378—380.