タバコ苗の栄養条件が定植後の生育に及ぼす影響（第 2 報）

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実験材料と方法
供試品種は黄色種グレイト・エローで、慣行法で育成した苗が 5～6 枚に達した時期に、1/10 坪の大きさの木箱に植えかえ、塩素施用を加えたものと、1.0 %蒸疏液を散布したものを組み合わせて、それぞれ塩素量及び糖分量の異なる苗を得ようと試みた。

実験結果と考察
1. 苗の栄養条件 得られた苗の栄養条件は第 1 表に示す通りで、蒸疏散布では少塩素苗で効果がみられ、他者ではあまり明かでなく、その後の逐次塩素量の変化においてのみ処理の効果がみられたのでここでは塩素のみについて得られた結果を報告する。
2. 定植後の生育経過 各区の苗を標準肥料を施した圃地に定植し、その後の生育を観察した。

| Table 1. Nutritious conditions of seedlings in each plot. |
|-----------------|-----------------|-----------------|-----------------|
| Plots           | 65% ethanol     | Soluble sugar   | Starch          | Total glucose   | Total nitrogen  | Total soluble nitrogen in soil/mg/100 dry soil |
| Direct reductive sugar | 1 A mg | 11.76 mg | 15.99 mg | 26.56 mg | 10.45 mg | 1.484 |
| Total sugar     | 1 B mg          | 14.24 mg        | 21.40 mg        | 35.64 mg       | 10.22 mg       | 5.033 |
| Starch          | 1 A N mg        | 18.20 mg        | 20.00 mg        | 38.20 mg       | 9.29 mg        | 12.85 |
| Total glucose   | 1 B N mg        | 22.32 mg        | 42.19 mg        | 26.68 mg       | 10.14 mg       |  |
| Starch          | 1 A L N mg      | 13.33 mg        | 15.01 mg        | 37.92 mg       | 11.55 mg       |  |
| Total glucose   | 1 B L N mg      | 22.91 mg        | 39.72 mg        |  |

Notes. 1: Low nitrogen. 2: Standard nitrogen. 3: High nitrogen.
A: non sucrose sprayed. B: Sprayed 1% sucrose solution 2 times daily in the seed-bed period. N: supplied nitrogen as 75 g of NH₄NO₃ to 1 tsuo at the transplanting day. LN: supplied nitrogen as spraying of 0.5% Urea solution 5 times before transplanting.

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The Effects of Nutritious Conditions of Seedlings on Growth of Transplanted Tobacco (II)

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Summary

Tobacco seedlings were grown under various combined conditions of different nitrogenous fertilizers and spraying of sucrose solution to obtain the seedlings containing various levels of nitrogen and sugars.

Then these seedlings of each plot were transplanted to the field under the conditions of standard nitrogenous and non-nitrogenous fertilizers, and studied on the relations of their nutritious conditions in the seed-bed period and growth after transplanting.

As the results, it was recognized that the amounts of nitrogen maintained in the seedlings correlated significantly with absorption of nitrogen and growth on the field after transplanting through a function as a starter.

Consequently, to obtain such a good seedling that shows good appearance in growth after transplanting, it was suggested that the supply of nitrogenous fertilizer to the seedlings in the seed-bed period should be considered and also existence of sufficient soluble nitrogen in the field available to seedlings at the time of transplanting should be assured.