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てん菜の人為的雄性不稔に及ぼす Na2,3-dichloroisobutyrate の効果について

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This experiment was carried out in 1961 to study the effects of Na2,3-dichloroisobutyrate upon the chemically induced male sterility of sugar beets. The results obtained were summarized as followes:The chemically induced male sterility of sugar beets was caused by spraying 0.2-0.4% solution of Na 2,3-dichloroisobutyrate about three weeks before flowering, and the flowering date of sugar beets so treated was retarded about a week. Female of the sugar beets seemed to have been injured a little by this treatment,and the yield and the rate of germination of the harvested seeds decreased to 64-96%and73-82%of the contro1, respectively,dy spraying 0.2% solution.

When the sugar beets were crossed naturally with the red table beets, the crossing rate of the treated sugar beets was 100%,while that of the untreated beets was 6.7%.The rate of germination of the crossed seeds was 42% in comparison with75% of the untreated seeds. Therefore,the application of male sterility induced by 0.2% solution would be advisable for breeding.