

# A METHOD FOR ILLUSTRATING PEDIGREES OF SMALL GRAIN VARIETIES FOR COMPUTER PROCESSING

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## SUMMARY

A method of illustrating pedigrees is described which is capable of use in computer processing. It is suggested that the method would fulfil the requirements of an international standard pedigree system.

## INTRODUCTION

Attempts are currently being made to provide a computer controlled international information storage and retrieval service concerned with the description and performance of world genetic stocks of crop plants and their wild ancestors (KONZAK and SIGURBJORNSSON, 1956; FINLAY and KONZAK, 1969). As a prerequisite to any system of this type it is necessary to standardize the methods of recording and interpreting the various description and performance data.

PURDY et al., (1968) proposed a method of illustrating pedigrees of small grain varieties and suggested that it be considered for universal adoption. In essence they adopted a system proposed by WIEBE (1961) and then modified and extended it to facilitate its use by a computer.

The method of WIEBE (1961) and PURDY et al. (1968) has lost some of the clarity which is to be found in the old hand-written pedigree method without gaining much benefit in computer compatibility or reduction in the length of the pedigrees.

Although the method of PURDY et al. has been adopted by some plant breeders in the USA it has not been widely accepted in other parts of the world. We provide an alternative method for consideration which has more general appeal because of its similarity to existing systems which are used universally.

## THE LANGUAGE OF PEDIGREES

A pedigree is a description of the parentage of a variety. This description must be governed by a set of rules or syntax. It is preferable for computer processing that these rules should be context-independent, i.e. that the symbols should have the same meaning wherever they occur and that terms should always occur in the same relationship to one another.

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