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THE EFFECT OF SEED SIZE AND DENSITY
ON
FIELD EMERGENCE AND YIELD OF PEARL MILLET
[*Pennisetum americanum* (L.) K. Schum.]

by

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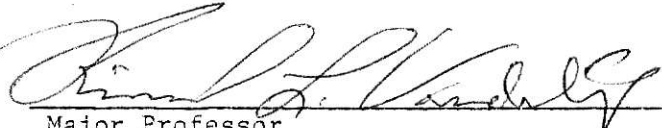
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INTRODUCTION

Pearl millet [*Pennisetum americanum*(L.)K. Schum.] is grown in the hot semi-arid areas of Africa and India especially in dry and infertile areas where it seems better adapted than other cereal grains. While its ability to overcome drought and other marginal environmental conditions during its growth cycle has been recognized, seedling establishment remains a major problem with the crop.

Inherent low vigor of the seedling and small seed size contribute to poor stands. Varieties and hybrids with improved seed and seedling vigor are being developed. Present varieties could be improved if selection could be made within a seedlot for the most vigorous seeds. To allow this selection, physical characteristics of the pearl millet seed which are related with vigor would have to be identified.

During 1978 and 1979 seedlots of five varieties and two inbreds of pearl millet were separated on the basis of seed size and seed density. Field performance of the seed fractions was based upon seedling establishment and grain yield.