

1 at I metaphase in polar view. chromosome number in this species has been



FIG. 1.

Somatic chromosomes in green-seeded gram (*Cicer arietinum* L.). $2n = 16$.

Green-Seeded Gram (*Cicer arietinum* L.) in Central Provinces.

AN exhaustive collection of local grams from all over the Central Provinces and Berar is in progress at the Oil Seeds Research Station, Nagpur. In the samples collected so far, a new type of gram was noticed. It is chiefly characterised by the presence of variable grades of green coloured seed-coat. This gram is reported to have been observed in 1932-33 by one Laharia, a cultivator of the village Bagaspur in Narasinghpur Tahsil, C.P., in a field of D 8 gram (*Gulabi Chana*). Subsequently it was tried on a large scale by one Choudhary Moolchand of Gotegaon and since then the area under this gram has been rapidly increasing due to a very high price it fetches in the market. The estimated area in 1936-37 has been reported to be 1,500 acres in that tract.

During the year 1937-38 this type was tried at the Government Experimental Farm, Adhartal. The seeds obtained bred true in respect of the various grades of green seed-coat. A few seeds of this type were sown during the rainy season of the current year for some experimental purposes at the Oil Seeds Research Laboratory and were observed to be breeding true. The plants were harvested when fully matured and the seeds obtained were healthy and showed cent. per cent. germination. The green condition, therefore, does not represent an early stage of maturity of any gram type.

The chromosome counts were made from the root-tip cells which showed $2n = 16$ (Fig. 1). In temporary aceto-carmin preparation eight bivalents were clearly observed

reported to be $2n = 14$ by Rau.¹ Dixit² studied the chromosomes of the Pusa types 1, 2, 18 and 25; in the first two types (the "Kabuli" gram types) the chromosome number was observed to be $2n = 16$ while the remaining two (the "Deshi Gram" types) showed $2n = 14$. In a giant mutant form of type 22 the chromosome number was recorded as $2n = 16$ by Dixit.³

The senior author is indebted to the Imperial Council of Agricultural Research for financing the Oil Seeds Research Scheme, Nagpur, where this work is being carried out.

R. H. RICHHARIA.
R. J. KALAMKAR.

Oil Seeds Research Laboratory,
Nagpur,
November 8, 1938.

¹ Rau, N. S., *Jour. Ind. Bot. Soc.*, 1929, **8**, 201-206.

² Dixit, P. D., *Ind. Jour. Agri. Sci.*, 1932, **2**, 385-390.

³ Dixit, P. D., *Ibid.*, 1932, **2**, 391-408.