

Chromosome Numbers in *Dolichos lablab* (Linn.) and (Roxb.).

THE chromosome numbers in *lablab* have been recorded by Karpechenko (1924)¹ as 22 and by N. S. Rau (1929)² as 24 in the somatic cells. Kawakami (1930)³ reports 11 as the haploid number. The present investigation was done to reconcile these varying records.

Advantage was taken of the wide collection of *lablab*, both field and garden varieties to pick typical varying material for examination. Types of plant pigmentation, seed colour, pod shape and consistency from both field and garden varieties were examined. To this material was added the examination of F_1 plants from crosses between garden and field varieties. Altogether material from nine sources were taken. Flower buds about 2 mm. long were fixed between 9 and 10 A.M. after removing the calyx. Root-tips from seeds sown in saw dust were collected every hour from 6 A.M. to 6 P.M. and those collected between 6 A.M. and 7 A.M. gave the best plates for counting.

The metaphase plates in pollen mother cells showed 12 bivalents. The plates from root-tips gave 24 chromosomes. In the F_1 material no irregularity in chromosome separation was noticed. It will thus be seen that the chromosome numbers in *Dolichos lablab* (Linn.) and (Roxb.) are $2n=24$.

Nemec (1910)⁴ records the $2n$ chromosome number in *D. multiflorus* as 24. N. S. Rau (1929)² finds 12 as the haploid number for *D. biflorus* (Linn.). The numbers observed for *D. lablab* are thus the same as those recorded for the two others, *Dolichos biflorus* (Linn.) and *Dolichos multiflorus*.

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¹ *Bull. Appl. Bot. Plant Breeding*, 1924-25, **14**, 143. (Abstract in *Bot. Abs.*, 1926, **15**, entry 4919, 728.)

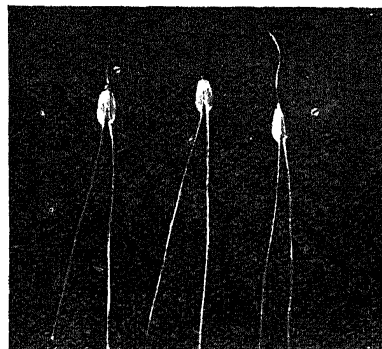
² *Jour. Ind. Bot. Soc.*, 1929, **8**, 201.

³ *Bot. Mag., Tokyo*, 1930, **44**, 319-28 (from Gaiser, *Bibl. Genet.*, 1933, **10**).

⁴ From Gaiser, *Bibl. Genet.*, 1930, **6**.

Double Awned Spikelets in Rice.

DURING the rice season of 1935-36 a single plant culture in the F_3 generation of a cross between the Karjat wild rice and a Burmese type was noted with some of the plants showing double awned spikelets confined to the upper part of the panicle branch (see photograph). In such plants not all the spikelets were double awned. There was variation in the number of double awned



spikelets in different panicles of the same plant.

The progeny consisted of 29 plants with some double awned spikelets and 10 plants with normal one-awned spikelets. No such condition was observed in the F_2 . All the double awned spikelets were sterile. The material will be grown through further generations to see whether the condition is hereditary and fuller details will be reported in due course.

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Chromosome Numbers in *Cymbopogon* Species.

THE Genus *Cymbopogon* (Gramineæ) is of considerable economic importance, in that it contains a number of species, which yield essential oils known in trade, as Lemon grass oil, Citronella oil, etc. But except the taxonomy of the various species, practically very little is known about their cytology. A study bearing on this subject has been undertaken by the author in the Oil Seeds Section of the Agricultural Research Institute, Coimbatore, with the South Indian material. Fischer (1934), in the *Flora of the Presidency of Madras*, Part X, mentions nine species occurring in South India. Five species have so far been worked out and