Introduction of Some Exotic Strains of Kenaf (*Hibiscus cannabinus* Linn)

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*Several improved strains of Kenaf (***Hibiscus cannabinus** *Linn.) were procured from the United States Department of Agriculture, Beltsville, Maryland, for introduction, acclimatisation and evaluation under Jammu conditions. This paper discusses the author's observations on the performance of these strains. Of the 7 strains evaluated, EV–71 has given encouraging results in Jammu.*

In recent years Kenaf (*Hibiscus cannabinus* Linn.) has received increased attention as a source of raw material for paper pulp. Its technological suitability for paper pulp, in respect of fibre composition and pulp characteristics, has also been established.

Several improved strains of Kenaf have already been evloved and their field performances are under study in various places in the United States of America[1]. Seeds of 7 such strains viz. G–4, G–45, C–2032, SH/15R, ST/11760, EV–41 and EV–71 were procured from the Crop's Research Division, Agrciultural, Research Service, United States Department of Agriculture, Beltsville, Maryland for introduction, acclimatization and evaluation under Jammu conditions. These strains were grown in the nursery of the Regional Research Laboratory, Jammu in 1971. Seeds were directly sown in rows on 5th May, 1971. Seedling emergence was rapid (8–10 days) and quite uniform in G–45, EV–41, EV–71 and C–2032. Emergence was poor and delayed (12–15 days) in G-4, ST-11760 and SH–15R. After about a fortnight, a uniform stand was obtained by thinning. Except for occasional hoeing and watering in the earlier stages, practically no further attention was needed by the crop. During June–August, 1971, there was sufficient rain and the soil moisture was abundantly available to the plants. In mid–July, 1971, G–4, G–45, ST–11760 and SH–15R were seriously affected with the foot rot fungus. The disease appeared in the form of a black, basal patch, extending upward to a height in severe cases, of three feet above the ground level. The infected plants ultimately broke away at the point of infection. EV–41 and C–2032 were mildly attacked with this fungus. EV–71 was almost resistant to this fungus. By end of September, 1971 i.e. after about 4½ months of vegetative period, C–2032 had started flowering and the remaining strains were in bloom by mid–October, 1971 (Fig. 1). Flowering continued till end November 1971 and the seeds were ready for collection in the last week of December, 1971.

The major disadvantage of growing G–45, ST–1160 and SH–1160 and SH–15R in Jammu is their greater susceptibility to foot rot fungus, as such, these strains were eliminated from further agronomical trials during the next growing season.

During 1972, the strains EV–71, EV–41 and C–2032 were sown in 2 lots. The first sowing was done on 20th March, 1972 and the second on 29th April, 1972. In the 1972 crop also, the foot rot disease appeared in all the 3 strains, but the incidence of the disease in EV–71 was almost negligible. EV–41 and C–2032 were comparatively more affected with foot rot fungus in 1972 than in 1971. It was observed that irrespective of the sowing dates, the flowering in both the March and April sown crops commenced almost simultaneously-late September, 1972, in case of C–2032 and mid–October in the remainning strains. The harvesting was done at the flowering stage before seed setting. The plants were cut close to the ground with a sickle, tied into bundles and left in the field for a few days to dry.

EV–41 attained the maximum average height of 3.52 metre; C–2032 was medium in height, having attained an average height of 3.30 metre; EV–71 was the shortest of all the strains, having attained the average height of only 3.27 metre. Stalk diameters of dried stem sections were measured with a vernier calli-

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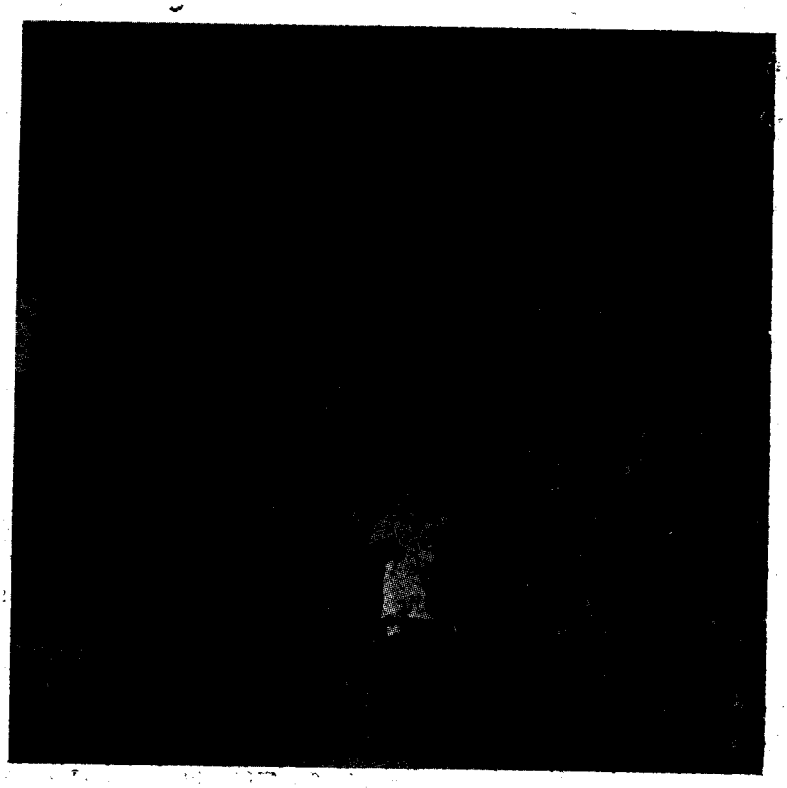

Fig. 1.

per. EV-71 averaged a stalk diameter of 2.34 cm in the middle region as against 2.29 cm in EV-41 and 2.28 cm in C-2032. The estimated stem yield in EV-71 reached 19.6 metric tons per hectare as against 17.8 metric tons per heactare in case of EV-41 and 16.0 metric tons in C-2032.

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References

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