

of such genotypes helps in higher pulp recovery for processing or for table purpose.

Poor fruit set has been an important constraint in mango improvement (Chadha 1998). The percentage of bisexual flowers is one of the important factors in deciding the fruit set. In the present study it was observed that the per cent bisexual flowers were more (>4.0%) in Kensington, Tommy Atkins and Sensation which were almost at par with the popular Indian cultivar 'Dasehri' (4.33%). Hence, these accessions could help in overcoming the problem of poor fruit set to some extent.

The Co-efficient of variation was more for the characters fruit weight (13.11%) and bisexual flowers (11.10%), which shows that there is wider variability for these characters which helps in selection.

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## Field Screening of Strawberry Germplasm for Resistance against Foliar Diseases

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**Key Words: Strawberry, Germplasm, *Fragaria x ananassa* Resistance**

Strawberry (*Fragaria x ananassa* Duch) is an important soft fruit grown throughout the country. It belongs to family Rosaceae and is derived from the hybridization of two native American species namely, *F. chiloensis* Duch and *F. virginiana* Duch, which was first developed in France in the 17th century (Sharma and Vamdagni, 2000). Delicate in flavour and rich in vitamin and minerals, strawberry is now a favoured food in the diet of millions of people around the globe. It can also be processed into a series of products through various processes such as canning, drying, freeze-drying, candying, freezing and jam making etc. Strawberry is attacked by a number of foliar diseases (Bose, 1970; Lele and Phatak, 1965), amongst these, foliar diseases, leaf spot and blight are of utmost importance (Bhardwaj *et al.*, 1998). Keeping in view the seriousness of these foliar diseases, an attempt has been made to screen the various lines for durable resistance of strawberry.

#### Evaluation of Germplasm

Thirty-five genotypes of strawberry including commercial varieties, local collections and breeding lines were screened for resistance against foliar diseases under natural epiphytotic conditions. The experiment was laid out in a Randomized Block Design with three replications at the University research farm of Dr. YS Parmar University of Horticulture and Forestry, Nauni (30° 52'N, 77° 11'E, 1270 amsl) (Himachal Pradesh) during 2003. All the recommended agronomical practices were followed in raising the crop, except application of fungicides in controlling the leaf spots. The screening was done on the basis of consecutive observations on occurrence of the above diseases in each genotype throughout the growing period. A 0-5 point scale was used for recording the disease severity. The percent disease index (PDI) was calculated as per McKnney, (1923).

Table 1. Reaction of strawberry germplasm to foliar diseases

Category	Reaction	No. of entry	Genotypes
0	Immune	Nil	—
1	R	8	Tore, Jatog special, Shimla special, No-7, No-5, Dilpasand, N R Round Red, V L
2	MR	15	Addie, Blackmore, Belrubi, Brighton, Catskill, Chandler, Confictura, Selva, Douglas, Elastha, Enta, Fairfax, Fen, Shastha, Phenomenal
3	MS	3	Seascape, Elesenta, North West
4	S	1	Florida

Based on PDI, the germplasm was categorized into different reaction classes: 0=immune (I), no leaf spots; 1=resistant (R), 0.1-5% leaf area infected; 2=moderately resistant (MR), 5.1-10% leaf area infected; 3=moderately susceptible (MS), 10.1-25% leaf area infected; 4=susceptible, 25.1-50% leaf area infected; and 5=highly susceptible, >50% leaf area infected.

The data presented in Table 1 revealed that none of the genotypes were found immune to foliar diseases, however, eight genotypes namely Tore, Jatog special, Shimla special, No-7, No-5, Dilpasand, N R Round Red and V.L. showed resistant reaction. Fifteen cultivars viz., Addie, Blackmore, Belrubi, Brighton, Catskill, Chandler, Confictura, Selva, Douglas, Elastha, Etna, Fairfax, Fern, Shastha and Phenomenal exhibited moderate reactions, while the remaining genotypes were either susceptible or highly susceptible. The germplasm observed

to be resistant would be utilized in breeding programme to develop foliar disease resistant varieties with desirable horticultural traits.

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## Evaluation of Exotic Guava Accessions for Pectin and Tannin Content and their Correlation to Fruit Fly Damage

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**Key Words: Exotic Collections, Fruit Fly, Guava, Pectin, Tannin**

Guava, basically an exotic crop is one of the important fruit crops of India and is commercially cultivated throughout the country. The fruits are rich source of Vitamin 'C' and pectin and are much relished when they are mature green. Owing to its high nutritive value and good flavour, guava fruit has got great potentiality for processing. The fruits are made into a number of processed products and among them nectar, jam, jelly and juice have got good market. Several studies were carried out on the physico-chemical properties of guava. Murali and Verma

(1989) evaluated guava varieties for nectar. According to Singh and Dhawan (1983), Lucknow 49 is the best variety for jelly making. As the quality of the end product depends upon the quality of the raw materials, varietal evaluation for key quality parameters and selection is very important. Keeping this in view, the present study was undertaken to evaluate the exotic accessions of guava for pectin and tannin content which is a pre requisite for processing and also their relation with varietal susceptibility to fruitfly, *Bactrocera dorsalis* (Hendel).