Some New Varieties of Strawberry for U.P. Hills

J. N. Seth and S. D. Lal[1]

The strawberry is chiefly a temperate fruit plant, but it can also be grown in sub-tropical climate by obtaining fresh plant material from the hills. It is a highly economical fruit crop in the valley areas of Naini Tal district of Uttar Pradesh. There is further hope to increase its cultivation in other areas because the existing area is not able to meet the total demand of the fruit preservation industry of northern India. At present a few varieties such as Red Coat, Cavalier and Jeolikote Local (introduced long ago from England) are commercially grown. However, the yield and fruit size (as well as quality) of these varieties is low. Further, these varieties are susceptible to diseases in this region of high rainfall. Hence a breeding program was begun to develop varieties suitable to this area.

For this program a large number of varieties were introduced from Europe, America and Canada and they were crossed with the existing varieties. Some of the outstanding hybrids selected from these crosses were compared with other selected varieties and 3 of them were found to be good yielders and of good quality. Their performance is also being tested at other localities.

New Outstanding Hybrid Varieties

1. **Chaubattia-Abhichal:** It is an early hybrid variety obtained from the cross Premier x Swiss Seedling (Fig. 1). Its fruits are solid and heavy, deeply red colored, having good taste and flavor. The fruit weight ranges between 4.0-11.5 gms. The average fruit yield per plant was recorded up to 295.3 gms. and average number of fruits per plant was 53 (Table 1). The fruits of this variety have been found very suitable for canning purposes and also for transport.

2. **Chaubattia-Arun:** It is a mid-season hybrid variety from the cross Red Coat x Elista (Fig. 2). The fruits of this hybrid are very sweet, tasty

Table 1. Important characteristics of the strawberry varieties.

Cultivar Name	Days to flowering	Days to maturity from flowering	Number of inflores-censes per plant	Number of flowers per plant	No. of fruits per plant	Fruit size		Average fruit weight (g)	Fruit yield per plant (g)	T.S.S.
						Length Cm	Width Cm			
Chaubattia Abhichal	238	36	5.0	60	53.0	3.86	3.20	5.6	295.3	8.00
Chaubattia Arun	248	34	4.5	42	37.0	3.68	3.62	5.2	189.5	9.00
Chaubattia Manjul	259	26	3.5	38	35.0	4.20	2.80	6.9	245.0	9.00
Red Coat	238	40	3.6	40	33.7	2.29	2.16	2.3	61.1	9.50
Jeolikote Local	249	39	3.1	40	29.7	3.11	3.04	4.0	84.9	9.00
Albritton	251	36	2.9	35	32.0	4.36	3.86	5.2	216.4	7.50
Premier	234	39	4.5	38	22.5	3.50	2.60	3.2	71.9	9.87
Swiss Seedlings	234	35	2.8	31	19.0	2.30	2.35	2.1	38.5	9.40

[1]Horticultural Experiments and Training Centre, Chaubattia (Almora), Uttar Pradesh, India.

Figure 1. Parentage of Chaubattia-Abhichal

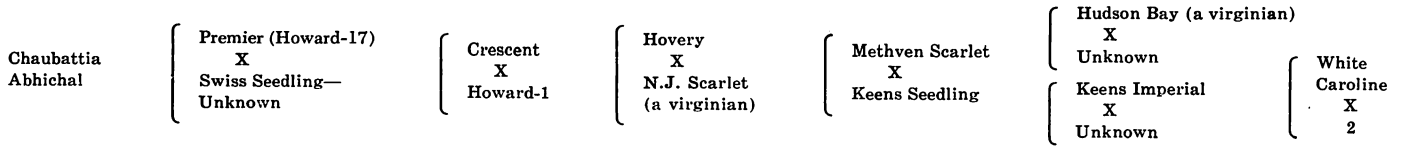


Figure 2. Parentage of Chaubattia-Arun

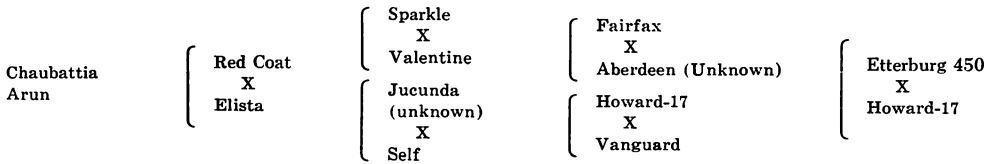
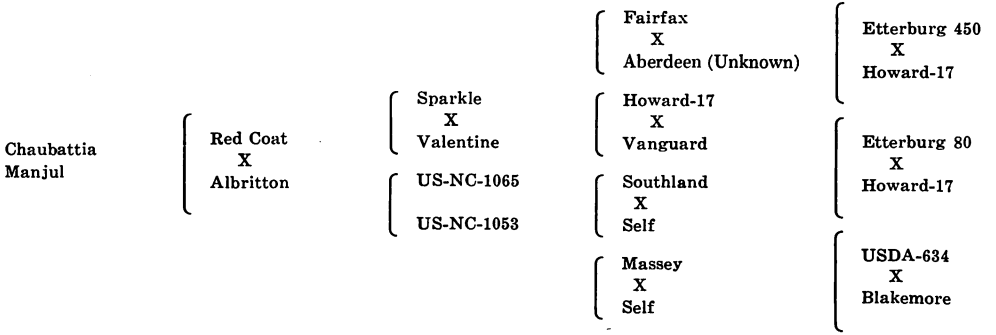


Figure 3. Parentage of Chaubattia-Manjul



and attractive red in color with fruit weight ranging from 4.0-11.2 gms. The average number of fruits per plant is 37 and yields up to 189.5 gms. per plant. It has been found to be a very suitable dessert variety. The data on important features of this variety are presented in Table 1.

3. **Chaubattia-Manjul:** It is a late flowering hybrid variety evolved from the cross Red Coat x Albritton (Fig. 3). The fruits are very big in size with elongated shape, attractive red color and delicious taste. The fruit weight ranges from 4.5-13.8 gms. with average yield 245 gms. per plant. The average number of fruits per plant is 35. This variety is very suitable for dessert purposes.

All these three hybrid varieties compared fairly well with the existing cultivars of strawberry in respect to ascorbic acid content total soluble solids, and acidity.

BREGGER STUDENT AWARD PAPER (1978): Ah-oon-ye-ya-pa, The Sand Cherry: Its Origin, Improvement and Nomenclature

BRUCE GARLEY[1]

INTRODUCTION

The Teton Sioux name for the Sand Cherry is Ah-oon-ye-ya-pa which means "with the wind." They said that when the berry was picked with the wind the fruit would be sour. But when picked against the wind the cherries would be sweet. Perhaps this is an apt description of the variety in quality and flavor that can be found in the Sand Cherry.

For many years controversy has centered around the separation of North American Microcerasus into species. Microcerasus is a term used to indicate a relatively primitive group of Prunus species in the Cerasus subgenus (19) including *Prunus Besseyi, P. pumila* and *P. susquehanae.* These plants are an important group in the development of new fruit varieties since they are able to perform as a genetic bridge whereby wide interspecific crosses can be accomplished. Selections within the Microcerasus also constitute an important class of home fruits called Cherry-plum as well as several ornamental types like Nanking Cherry, and Cistena Sand Cherry.

In North America, after a lapse of forty years, there has been renewed interest in *P. Besseyi* and other Microcerasus. This is because they can possibly act as a bridge to incorporate the hardiness of Pin Cherry *(Prunus pensylvanica)* into Apricot *(P. armeniaca)* or Peach *(P. persica).*

This paper is meant to acquaint the reader with the Western Sand Cherry (*Prunus Besseyi* Bailey). The recent history of Sand Cherries and the evolution of Microcerasus are dealt with in the main essay. In the appendices will be found descriptions of the Prunus species involved in the Microcerasus nomenclature controversy as well as a list of cultivars derived from *Prunus Besseyi.*[1]

HISTORY OF THE SAND CHERRY

The first description of any Sand Cherry was by H. L. Duhamel du

[1]University of Minnesota.

Ed. Note: Appendices including botanical terms and cultivars and selection of Prunus *besseyi* and hybrids with pedigrees available from author.