

Hop Prima Donna

Wilt disease, caused by *Verticillium albo-atrum*, appeared in the UK in the 1920s and as there is no chemical means of controlling this disease the virulent forms will kill the hop plant and destroy production.

All traditional varieties are fully susceptible and it has threatened the continued production of *Fuggles* and *Goldings* in the UK. Production has continued when infection has been slight however, when the disease is endemic in the soil, resistant varieties provide the only means of continued production.

Fortunately, some wild USA plants introduced by Professor Salmon of Wye College carried resistance to wilt disease. Letters from Salmon to local hop growers indicate that USA-derived males were also being used on Kent farms as pollinators and, in 1911, a grower noted an interesting hybrid amongst the variety *Bates Brewer*¹.

Grower Mr E. A. White established a small area of this hybrid on his farm at Beltring, Kent under the code 1147. The farm was subsequently bought by the Whitbread brewery and it suffered a serious outbreak of wilt in the early 1930s. Hybrid 1147 however, clearly showed resistance and, known as *Whitbreads Golding Variety* ('WGV') was released for production in 1953. It still remains in production today as a wilt-resistant aroma-type alternative to *Goldings*.

In 1996 Horticulture Research International (HRI) (at Wye College) released First Gold, a cross between WGV and a dwarf male (23/77/56). Originally bred in 1985, First Gold was the world's first Hedgerow (dwarf) hop and has many of *Goldings* flavour characteristics but with a higher alpha acid at 7 to 9%. The hop carries the wilt tolerance of WGV and is resistant to strains of powdery mildew. It gives a rich citrus character with flavours described as orange peel and dried apricot. First Gold has proven success in the United States in stronger flavoured summer beers and IPAs.

First Gold was granted Plant Breeder's Rights in 1995 but after registration was surrendered in 2003, the genetic marker was removed from the original variety and it was re-released in the UK as Prima Donna.

Prima Donna is a fast growing plant with short internodes. Flowers appear at the end of July on plants over one metre tall and cones develop over a six week period in late August and September. Cones are encouraged if given slight shade. Day length in excess of 19 hours will inhibit flowering so avoid street lights.

Prima Donna is tolerant of a wide range of soil types but thrives best in a deep, free-draining soil which is slightly acidic. Will reach 2 - 3 metres in height but plants quickly deteriorate if the rootstock remains in waterlogged soil during the winter.

Prima Donna is very hardy and should be planted where it will get frosted.

¹ Bates's Brewers was a main-crop variety selected by John Bates of Brenchley about 1879 or 1880 from a *Goldings* hop garden in the Sevenoaks Weald district. The six sets yielded by the original plant were bought for a bottle of whisky each. The hop was said to be of excellent quality, full of lupulin and of good flavour but as it did not produce a heavy crop it fell out of favour.