

Cherry Rescue and the Assessment of Orchards

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Efforts to restore orchards and rescue old cherry varieties received some stimulus in August 2017 at a Stone Fruit Conference, the first of its kind, organised by the Three Counties Orchard Project, (Counties of Hereford, Worcester and Gloucester), and held at Hartpury, the former County Agricultural College near Gloucester. Stone fruits include cherries, plums, peaches, apricots, almonds etc..

Timed to coincide with the plum season, the event attracted over a hundred fruit experts and representatives of most of the fruit and orchard organisations nationwide; voluntary, professional and commercial. In addition to the series of lectures on specialist topics such as diseases and taxonomy from eminent authorities, poster and table-top exhibits enabled the numerous organisations represented to show their work. The work of the Wyre Forest Study Group and the support of Bewdley Civic Society focusing on 'Cherry Rescue' was displayed on one such exhibit

In 2005 the Study Group conducted a detailed survey of old orchards at Bowcastle Farm, Bewdley (English Nature Research Report no. 707. 'The Biodiversity of 3 Traditional Orchards within the Wyre Forest SSSI in Worcestershire: a survey by the Wyre Forest Study Group') As part of this work the vitality of each tree was assessed on a ten point scale. Ten applied to a healthy, mature tree. Numbers 9, 8, 7, showed gradual decline until number 6 with the last living shoots from which propagation might be possible. Number 5 represented a completely dead tree and the further points recorded the gradual decay until nothing remained. Thus, the long process, taking place over many years, of gradual decline, death and decay could be registered on a single simple scale, which can then be used to compare both the condition of different orchards and long term changes within a single plantation.

One of the Bowcastle orchards, the Cherry Orchard, was revisited in 2017, twelve years after the original study. Using the method outlined above, comparison between the state of the trees in 2005 and the same trees in 2017 can be made. The data in TABLE 1 shows the frequency or the number of trees in each of the ten vital stages from healthy mature trees to totally decayed. These results give a vivid impression of the magnitude and rate of orchard decline. Of the 49 trees alive in 2005 only 26 are still living sufficiently to permit propagation, a loss of 46%.

From the presentations and discussions at the Stone Fruit Conference it was clear that, nationally, little effort to distinguish and rescue cherry varieties is taking place and that the orchards and cherry trees remaining around Bewdley, now rapidly disappearing as a resource, are of increasing significance and are becoming a rare commodity. Orchards are being planted with new young trees, but propagation is from a limited range of genetic material. The National Collection at Brogdale in Kent only has three trees of each variety (and by no means all varieties). This and other private collections of old varieties, also with only a few specimens, represent the limited range, but also the main supply of genetic material for grafting and regeneration, and much of this material is of confused identity.

The decline measured in one local orchard will apply to other old, neglected orchards. Of course fruit trees, like all living things, grow, mature, die and decay, but once dead there are no possibilities for propagation and survival of the unique genotype which each tree contains. The varieties and genetic resources carrying the long inherited 'land race' characteristics which permit adaptation to local conditions and which, potentially, could be used to breed new forms able to adapt to unknown future and changing conditions will have been lost for ever, unless propagated before they die out.

TABLE 1 Cherry Orchard, Bowcastle Farm, Bewdley. 2005 and 2017.

Numbers of trees, or frequency, in each of the vital stages from healthy, mature trees (10) to total decay (0), assessed in 2005 and 2017.

	MATURE		DECLINE				DEATH			DECAY	
VITALITY	10	9	8	7	6	5	4	3	2	1	0
2005	2	8	8	21	10	5	4	10	3	7	0
2017	0	1	3	14	8	3	2	8	22	11	6

TABLE 2 Summary of data in table 1

2005	Total 78 trees	Living 49 = 62%	Dead and decaying 29 = 37%
2017	Total 78 trees	Living 26 = 33%	Dead and decaying 52 = 66%
Loss over twelve years;		Living trees = 23 = 46%	