

# AIRBORNE CHALARA SPORES DEBATE

A Conference\* held in London appears to have 'laid the ghost' of long distance airborne travel of ascospores of the ascomycete fungus *Hymenoscyphus pseudoalbidus* (imperfect or asexual stage *Chalara fraxinea*) to rest, while raising the possibility of another unexplored avenue of transcontinental movement for the fungal pathogen and disease.

Arguments in favour of long distance airborne travel of *Chalara* ascospores from continental Europe and into Eastern England rely heavily on circumstantial evidence relating to the high concentration of reported disease outbreaks in East Anglia. The long distance movement and survival of completely different fungal spores in other parts of the world is used as supporting evidence.

The arguments used against rest on a clear mismatch between long distance air-borne movement with the time lines and distance lines of *Chalara* outbreaks and spread of the pathogen across Europe over the last 20 years, coupled with the known high susceptibility of the ascospores to UV (ultra violet) light and desiccation.

Speaking at the Fraxback Conference Dr Anne Chandelier presented detailed results from *Chalara* spore trapping research carried out in Belgium which throw light on the situation. By trapping *Chalara* ascospores up a vertical profile she showed spore concentration was thirty times higher at 0.5m than 3.0m above ground level. Lateral movement for the majority of spores was no further than 50 m from the point of liberation.

Dr Chandelier showed that *Chalara* ascospores liberated from apothecia (fruiting bodies) on fallen ash leaf stalks are concentrated at only 0.5m from ground level, indicating little opportunity for lift off into the atmosphere and subsequent long distance dispersal in air currents. Moreover any 'high flying' spores would clearly be exposed to correspondingly high levels of UV light and stronger drying out forces compared with the same spores close to ground level.

In these respects the *Chalara fraxinea* situation is completely different to that for *Phytophthora ramorum* the spores (sporangia) of which are released from infected foliage at the tops of tall Japanese larch trees.

Defra's claim that *Chalara* ash dieback arrived in the UK via airborne spores from Europe is clearly questioned by these findings. Evidence supporting the airborne movement of viable *Chalara* ascospores from continental Europe and into the United Kingdom would clearly exonerate Defra from accusations that they acted too slowly in banning the import of infected ash planting material.

However, there appears to be one unexplored avenue of *Chalara* entry into the UK and a corresponding avenue of 'escape' for Defra. Apart from the role of infected ash planting material, comments made by Dr Chandelier's about infected ash leaf stalks being capable of producing apothecia (*Chalara* fruiting bodies containing ascospores) for two to three years after leaf fall raises the spectre of another avenue of disease entry into the United Kingdom. Could infected ash leaf stalks attached to the wheels of European vehicles be responsible for spreading *Chalara* ash dieback and providing a hitherto unrecognised and unexplored route of entry for *Chalara* ash dieback into the UK?

After all this was considered to be the most likely mode of spread of horse chestnut leaf miner (*Crameraria ohridella*) across Europe and into the UK, with dead horse chestnut leaves containing live overwintering pupae adhering to the wheels and bodywork of transcontinental vehicles.

Be that as it may, you still have to explain why *Chalara* ash dieback took almost exactly 20 years to move the 1000km from Poland to the Pas de Calais region of France and exactly what articulated lorry loads of wine from France, cheese from the Netherlands and bacon from Denmark were doing inside ancient East Anglian woodlands.

\* FRAXBACK is a 4-year action plan initiated in 2011 and funded by 'COST' (The European Cooperation in Science and Technology). Generation of a comprehensive understanding of *Chalara* to produce practical guidelines for pan-European sustainable management of *Fraxinus* (ash) species are the aims.

*Dr Terry Mabbett*



# E AT CONFERENCE



## Tributes to BIGGA Life Member Henry Fry

Everyone at BIGGA was saddened to hear of the passing of Henry Fry on 29 January, aged 84, following a brief illness.

A Life Member of the Association, he replaced his father when he became Head Greenkeeper at Clyne Golf Club in South Wales and was also BIGGA's South Wales Section Secretary before his retirement in 1994. He was also a Chairman of the BGGA, as was his father.

Gareth Dunce, Deputy Head Greenkeeper at Southerndown Golf Club in Bridgend, paid this tribute.

"Reserved and unassuming, Henry could be described as a gentlemen, a man of absolute integrity, great loyalty, and worth his weight in gold - a cliché which hardly does him justice. His father Harry Fry was appointed as Clyne Golf Club's first Head Greenkeeper in February 1920 and was directly responsible for the construction of the course as designed by golf architects H.S Colt and Harris.

"Henry joined the greenkeeping team in September 1958 and took over the Head Greenkeeper position upon his father's retirement in 1962. He gave many years of dedicated service on the course, often under extremely frustrating conditions. Henry was heavily involved within the industry from the start of his career and was very

keen to promote all aspects of greenkeeping, and went on to become BIGGA's South Wales Section Secretary.

"As a well-known and respected figure during this period he amassed many colleagues and friends whilst organising many golf days and other events, in which he could be found improving his game. He was a good golfer but never took the game too seriously. He was a very approachable figure and was happy to pass on his many years of experience and advice on to young greenkeepers.

"He was also well known for his mechanical skills and could often be found repairing, improving and improvising on machinery in the workshop. He was frequently many people's first port of call regarding any mechanical problems and always offered to lend a helping hand.

"Clyne Golf Club recognised his outstanding contribution by electing him an Honorary Life Member in 1994 and he also became a Life Member of BIGGA. To mark the end of his time at Clyne the Henry Fry Retirement Event was held in September 1994. The clearest ever indication of the respect in which Henry was held by the club's members was the fact that he was accorded a standing ovation by the large crowd present."