

Felicity Vear

Research manager of the genetics and breeding team at INRA, Clermont-Ferrand, France 1986 – 2015. Since retirement, honorary scientist attached to the sunflower genetics team at INRA Toulouse, France

After a studentship at INRA Clermont Ferrand, F. Vear obtained her Ph.D. from Reading University UK. "Downy mildew resistance and male sterility in sunflowers" in 1973 and then joined INRA as research scientist, working at first with P. Leclercq.

Research subjects: **Disease resistance:** Resistance to downy mildew, since the first attacks in France in 1969, testing methods, genetics of major gene resistance, non-race-specific resistance. Resistance to Sclerotinia, mostly head rot but also terminal bud attacks and wilt: testing methods, heredity of resistance, identification of QTL. Resistance to Phomopsis: testing methods, heredity of resistance and identification of QTL. **Breeding methodology and related subjects:** Recurrent selection, Methods for testing combining ability, Organisation of multilocation trials, Breeding of disease resistant inbred lines, Research for characters permitting hybrid yield prediction from inbred lines, Organisation and rationalisation of maintenance of cultivated genetic resources, Genetics of hullability, Heredity of earliness at flowering and harvest, Effects of cytoplasmic male sterility, Genetics of pollen and nectar production.

ISA: Attendance at all the International Conferences except Australia, since 1972, Member of the board 1992-2017; chairman 1996-2000; Pustovoit medal 2004.

Recent scientific articles:

Cadic, E., Coque, M., Vear, F., Grezes-Besset, B., Pauquet, J., Piquemal, J., Lippi, Y., Blanchard, P., Romestant, M., Pouilly, N., Rengel, D., Gouzy, J., Langlade, N., Mangin, B., Vincourt, P. (2013) Combined linkage and association mapping of flowering time in Sunflower (*Helianthus annuus* L.) *Theor. Appl. Genet.* DOI: 10.1007/s00122-013-2056-2

Vear F. (2016). Changes in sunflower breeding over the last fifty years. *OCL*. 23. D202. 10.1051/ocl/2016006.

Mangin, B., Pouilly, N., Boniface, M.C., Langlade, N.B., Vincourt, P., Vear, F., Muñoz, S. (2017) Molecular diversity in sunflower populations maintained as genetic resources is affected by multiplication processes and breeding for major traits. *Theor. Appl. Genet.* doi: 10.1007/s00122-017-2872-x.

Pecrix, Y., Buendia L., Penouilh-Suzette, C., Maréchaux, M., Legrand, L., Bouchez, O., Rengel, D., Gouzy, J., Cottret, L., Vear, F., Godiard L. (2018) Sunflower resistance to multiple downy mildew pathotypes revealed by recognition of conserved effectors of the oomycete *Plasmopara halstedii*. *Plant J.* doi: 10.1111/tpj.14157

Pecrix, Y., Penouilh-Suzette, C., Muñoz, S., Vear, F., Godiard, L. (2018) Ten broad spectrum resistances to downy mildew physically mapped on the sunflower genome. *Front. Plant Sci.* doi: 10.3389/fpls.2018.01780

