

## Anne Fisher, Recipient of the 2025 Tobacco Science Research Conference Lifetime Achievement Award

*Laudatio to the award given by*

*Dr. Carol Wilkinson*

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Anne Fisher was born and grew up on a farm in Zimbabwe – not the tobacco-growing part of Zimbabwe. She attended the University of Rhodesia (now the University of Zimbabwe) on a scholarship, where she graduated with a B.Sc. Agric Hons. Degree. She was then recruited by the Tobacco Research Board (TRB), where as a 21-year old new graduate, she was a junior plant breeder – and saw a tobacco plant for the first time. The TRB later sent her to the University of Birmingham in the UK to do an M.Sc. in Applied Genetics. She, along with all the other junior staff, benefitted from the TRB tradition of mentorship, particularly from her head

of department, Brian Smeeton and other senior staff such as Dr. Henri Papenfus (Pap), one of the people who provided support for this award. Anne worked in the Plant Breeding Department at the TRB for 27 years, the last seven years as head of Plant Breeding. Her main accomplishments were the development and release of rootknot-resistant flue-cured varieties, building on the definitive work done by Brian Smeeton.

For the last 24 years, Anne has worked at the University of Kentucky, moving from flue-cured to burley tobacco, and from plant breeding to applied physiology. In this steep learning curve, she was fortunate to work for, and be mentored by, Dr. Lowell Bush, who also provided support for this award. Her work has been in the areas of nicotine conversion, TSNAs and low alkaloid tobacco. Her main accomplishments have been the development of the LC Protocol, building on the work done by Dr. Bush, and the development of an ultra-low nicotine burley breeding line. Anne served six terms on the CORESTA Scientific Commission, with one term as Phytopathology vice-president and two as president. She has been a member of the CORESTA board for the last nine years, with four years as board vice-president. She has been awarded the CORESTA bronze, silver and gold medals. She served on the TSRC Policy Committee and was conference chair for a TSRC conference. Anne considers that the credit for this award rightly belongs to those who taught her everything she knows, particularly Brian Smeeton and Lowell Bush, as well as her husband and colleague, Colin Fisher.

“Tobacco research is like a paid hobby” – words from Anne’s first boss.

*From the website of the Tobacco Science Research Conference.*

It is an honor and a privilege to introduce this year's recipient of the TSRC Lifetime Achievement Award, Anne Fisher. I have been fortunate to know and interact with Anne for more than 30 years. Anne excels in research, extension, facilitating learning, and in the application of new research findings to solve compelling practical problems in the tobacco community.

Anne's tobacco program is innovative, creative, and dynamic. Her program focuses on solving real world problems that directly impact producers and the industry. Anne started her career in the plant breeding department of the Tobacco Research Board in Zimbabwe and was eventually appointed head of the plant breeding department. She released multiple flue-cured tobacco cultivars with previously unobserved combinations of yield, disease, and nematode resistance. The research-based information generated by Anne and provided to the scientific community, agricultural industry, and growers was integral to the future success of tobacco production. Anne demonstrated a particular talent for presenting scientific information in a clear, interesting, and precise manner. She also has a very good understanding of the practicalities and difficulties of commercial crop production and the commercial aspirations of growers. Consequently, these meetings were always a huge success and made a large positive impact on the industry.

Anne also developed an exceptional research program at the University of Kentucky. Her program focused on development of the low converter (LC) protocol, tobacco-specific nitrosamine (TSNA) studies, and low alkaloid studies. Both conversion and NNN (*N*<sup>3</sup>-nitrosonornicotine) have been considerably reduced in the tobacco crop based on her development of the LC protocol which is used worldwide. TSNA's have also been reduced based on information from numerous agronomic and curing studies she has conducted. She published the first guide for growers with information needed to reduce TSNA's in their tobacco crop. Anne discovered a spontaneous low alkaloid mutation in a selection of the burley breeding line L8 which reduced nicotine to 37% of the wild type sister lines. The mode of action of this novel gene appears to be different from the *nic1nic2* mutants and could potentially be stacked with *nic1nic2* to develop ultra-low nicotine lines. Her record indicates an imaginative and industrious program that is having a positive impact on Kentucky agriculture and tobacco programs nationally and internationally.

Anne has an excellent international reputation as a tobacco breeder, geneticist, and applied physiologist. This is reflected in her being awarded the prestigious CORESTA gold, silver, and bronze medals in 2022, 2008, and 2002, respectively. Her research is contributing information needed by the profession and she is taking that information to the industry and producers where it is being put into practice.

Anne has exceptionally strong leadership skills which she has effectively demonstrated in diverse situations. In addition to being head of the plant breeding department in Zimbabwe, Anne is currently research director at the University of Kentucky Tobacco Research and Development Center. She has served as chair of TSRC and the TSRC Policy Committee. Anne has also served as president, vice-president, or coordinator on the CORESTA Board, Scientific Commission, and working groups. She has been the initiator and coordinator of several study groups in CORESTA.

Anne is an exceptionally effective communicator and speaker. She has the ability to present scientific information to a broad range of participants. Anne is well organized and makes people feel comfortable asking questions. Anne also actively trains and mentors undergraduate students. Her emphasis on providing accurate, unbiased, research-based information has set an example for her students to follow in the next stage of their career.

Anne is a truly innovative tobacco scientist with immense knowledge in multiple areas of tobacco research. Please join me in congratulating Anne on being the recipient of the TSRC Lifetime Achievement Award.

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