Previous Mayfield Cotton Engineering Award Winners

1985 ....................... Lambert H. Wilkes
1986 ....................... Robert M. Fachini
1987 ....................... Donald W. Van Doorn
1988 ....................... No Recipient
1989 ....................... Calvin B. Parnell
1990 ....................... No Recipient
1991 ....................... William F. Lalor
1992 ....................... Wilbur E. Seigler
1993 ....................... Russell D. Copley
1994 ....................... No Recipient
1995 ....................... Andrew G. Jordan
1996 ....................... No Recipient
1997 ....................... Michael H. Wilcutt
1998 ....................... Ed Hughes
1999 ....................... W. Stanley Anthony
2000 ....................... Preston E. Sasser
2001 ....................... Roy V. Baker
2002 ....................... Alan D. Brashears
2003 ........................ Michael J. Bader
2004 ........................ Eugene P. Columbus
2005 ........................ Julius R. Williford
2006 ........................ Phillip J. Wakeley
2007 ........................ Donald R. Wanjura
2008 ........................ Wayne A. LePori
2009 ........................ J. Kelley Green
2010 ........................ Bill M. Norman
2011 ........................ Roger A. Isom
2012 ........................ Thomas D. Valco
2013 ........................ Robert V. Avant, Jr.
2014 ........................ Ed Barnes
2015 ........................ Timothy A. Deutsch
2016 ........................ Michael D. Buser
2017 ........................ Richard Byler
2018 ........................ James P. Bordovsky
2019 ........................ Joe W. Thomas

The Mayfield Cotton Engineering Award encourages and recognizes outstanding engineering contributions to the cotton industry. To be eligible for this award, a nominee must be a ASABE member, have a good long-term job performance record with at least five years of experience in cotton, and have made a specific recent engineering-related contribution to the cotton industry.

The award consists of an engraved plaque.

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Derek Whitelock, PE, is the recipient of the 2020 Mayfield Cotton Engineering award in recognition of his innovative air quality research and leadership efforts benefiting the cotton ginning industry.

Whitelock is the research leader at the Southwestern Cotton Ginning Research Laboratory with the USDA Agricultural Research Service in Las Cruces, New Mexico. There, he directs the broad research program, provides vision and coordinates scientific activities and is responsible for enhancing the creativity and productivity of the lab. He also leads and collaborates on personal research to develop new ginning methods and practices that improve the quality and textile processing efficiency of ginned cotton, and to advance new knowledge and technologies for control and measurement of agricultural particulate matter emissions.

Whitelock co-led the largest and most comprehensive air quality study ever conducted in the cotton ginning industry. This has addressed many issues including a lack of PM2.5 emission factors, poor quality PM10 and total particulate matter emission factors, accuracy of dispersion modeling, and particulate matter sampler error issues. The emission factors from this work are currently being incorporated into cotton gin operating permits. This research improves the safety for workers at cotton gins and has significantly reduced annual maintenance costs and has reduced the need, and required expenses, for alternative abatement technologies.

Whitelock is part of a nationwide collaborative team, conducting research that assessed the current impact of processing on upland cotton quality and that established baseline quality levels for further ginning research to reduce fiber damage. He has evaluated current technologies and developed new methods for removing foreign matter from ginned cotton. These included an ARS seed-cotton-trashfracator for cotton lint foreign matter removal and utilizing innovative high-speed-video techniques to evaluate candidate lint cleaner grid-bar designs.

A 24-year member of ASABE, Whitelock has been an active member on a number of ASABE Natural Resources and Environmental Systems committees including the Cotton Engineering and the Environmental Air Quality committees. He has also been extensively involved in the ASABE New Mexico Section and the Membership Development Council. Whitelock has also served on the ASABE AGCO National Student Design Competition committee.

Whitelock is author or coauthor of more than 250 peer-reviewed articles and other technical publications. Throughout his career, Whitelock has received many Certificates of Merit from the USDA.