

2020/21 WSSA Committee Progress Report

Committee Code and Name: E11 – Weed Loss Committee

Committee Chair: Peter Sikkema (NC-2023)

Committee Members for this year:

Ian Burke (W-2023), Michael Flessner (NE-2023), Mark VanGessel (NE-2023), Anita Dille (NC-2023), Zahoor Ganie (NE 2022), Nicholas Basinger (S-2022), Sandeep Rana (NC-2022), Wes Everman (S-2021), Nader Soltani (C-2021)

Board Coordinator: John Byrd (SWSS Rep)

**Committee Members Rotating Off:
Appropriate Replacements:**

2020 Summary of Activities

- What are the committee's goals for this year?
 - To continue collect data on crop (wheat, cotton, vegetables, potato, rice and peanut) yield losses from as many US states and Canadian provinces as possible across the last 10 years; summarize the impact of weeds on crop yield and monetary loss; prepare manuscripts for publication in Weed Technology.
 - Peter Sikkema and Nader Soltani are assembling the data on yield and monetary loss due to glyphosate-resistant weeds in Canada for publication in Weed Technology – target completion: 2021.

- List the committee's accomplishments (through December):
 - This committee has been very active over the past 5 years; the following manuscripts have been published since 2016...
 - Soltani, Nader, Anita J. Dille, Ian C. Burke, Wesley J. Everman, Mark J. VanGessel, Vince M. Davis and Peter H. Sikkema. 2016. Potential corn yield losses from weeds in North America. Weed Technology 30: 979-984. (Citations = 79).
 - Soltani, Nader, Anita J. Dille, Ian C. Burke, Wesley J. Everman, Mark J. VanGessel, Vince M. David and Peter H. Sikkema. 2017. Perspectives on soybean yield losses due to weeds in North America. Weed Technology 31:148-154. (Citations = 48).
 - Soltani, Nader, Anita J. Dille, Robert H. Gulden, Christy L. Sprague, Richard K. Zollinger, Don W. Morishita, Nevin C. Lawrence, Gustavo M. Shatella, Andrew R. Kniss, Prashant Jha and Peter H. Sikkema. 2018. Potential yield loss in dry bean due to weeds in the United States and Canada. Weed Technology 32:342-346. (Citations = 18).

- Soltani, Nader, J. Anita Dille, Darren E. Robinson, Christy L. Sprague, Don W. Morishita, Nevin C. Lawrence, Andrew R. Kniss, Prashant Jha, Joel Felix, Robert E. Nurse and Peter H. Sikkema. 2018. Potential yield loss in sugar beet due to weed interference in the United States and Canada. *Weed Technology* 32:749-753. (Citations = 7).
- Dille, J. Anita, Phillip W. Stahlman, Curtis R. Thompson, Brent W. Bean, Nader Soltani and Peter H. Sikkema. 2020. Potential yield loss in grain sorghum with weed interference in the United States. *Weed Technology*. 34:624-629. (Citations = 0).
- What information was posted on the WSSA website?
 - Weed Technology publications are available.
- How much funds were requested? How much was spent?
 - Funds were requested to cover the cost of publication in *Weed Technology* (sorghum yield loss manuscript in 2020).
- What was the impact of the committee activities/accomplishments on the following: membership, publication, policy, legislation, and/or education?
 - The committee works towards summarizing and publishing the yield loss results for specific crops or groupings. Information has been shared via poster/oral presentations at weed science meetings and published in *Weed Technology*.
- What is the current state of the committee's projects and activities?
 - Michael Flessner and Ian Burke plan to prepare a manuscript on the potential yield loss in wheat due to weed interference.
 - Sandeep Rana, Wes Everman and Nick Basinger plan to prepare a manuscript on the potential yield loss in cotton due to weed interference.
 - Zahoor Ganie, Sandeep Rana and Mark VanGessel plan to prepare a manuscript on the potential yield loss in vegetables due to weed interference.
 - Zahoor Ganie and Nader Soltani plan to prepare a manuscript on the potential yield loss in potato due to weed interference.
 - Sandeep Rana and Wes Everman plan to prepare a manuscript on the potential yield loss in rice due to weed interference.
 - Wes Everman and Nick Basinger plans to prepare a manuscript on the potential yield loss in peanut due to weed interference.

2021 Plan for Committee Activities

- Other Goals for next few years:
 - Nick Basinger plans to prepare a manuscript on the potential yield loss in forages/alfalfa due to weed interference.

- Nick Basinger plans to prepare a manuscript on the potential yield loss in perennial fruit crops (grapes, tree fruit, strawberries and cane berries) due to weed interference.
 - Is weed species composition changing over time? (Top 10 weed species in various regions of North America, Is the data based on expert opinion or actual field surveys?)
 - Potential yield loss due to herbicide-resistant weeds. Is there data available on number of acres impacted?
-
- Plan of Action:
 - Please see above

Recommendations for Board/Society Action:

- Funds requested for 2021:
 - The committee requests that WSSA pays for the publication charges to publish the manuscripts on yield losses in Weed Technology journal.
- Other requests for the Board:
 - None