Sub-Group TSNA in Air-cured Tobacco

Report to the Scientific Commission, October 2006 Coordinator: Gary Palmer, University of Kentucky, USA Liaison: Mark Nielsen, GenApps, USA

Due to the extended nature of research conducted by participants of the TSNA Task Force, a proposal to change the TSNA Task Force to a Sub-Group was suggested in Kyoto, Japan. That proposal was submitted to the Scientific Commission in May of 2005. The Scientific Commission approved the change and the TSNA Task Force became Sub-Group TSNA in Air-cured Tobacco.

Status of Key Objectives

Objective 4: Develop a collaborative study, which uses hobo loggers or a suitable substitute to collect curing conditions and possible impact of TSNA levels for tobaccos of diverse origins and curing environments. Attempt to standardize placement of equipment and sample protocols **Status:** Objective 4 is nearing completion with all data collected. However, due to the loss of key coordinators a final report will be delay.

Objective 6: Review the issues of post cure tobacco storage and ventilation parameters.

Status: Objective 6 was initiated at the CORESTA meeting in Brazil. Dr. Lowell Bush, coordinator, and others are developing procedures for evaluation. Preliminary data have been collected and further research is planned. Direction of the research projects will be finalized in Paris at the 2006 CORESTA Congress. Key cooperators include: Anna Wiernik, Swedish Match; Dwayne Beeson, R.J. Reynolds Tobacco Company; Peter Walton, Premium Tobacco Ltd; Edson Espindola, Souza Cruz; Satoshi Katsuya, Japan Tobacco Inc.; and Marcus Vinicius Luisi, Souza Cruz

Objective 1 (Modified): Adopt a standardized nornicotine seed screening protocol.

Status: Although the TSNA Task Force has determined that no action is required on Objective 1 as originally stated, the objective was redirected to evaluate adoption of a standardized seed screening protocol aimed at reducing nornicotine converter plants within a seed variety. A proposal was made at the TSNA meeting in Brazil that a screening protocol developed by the University of Kentucky be accepted by the CORESTA Scientific Commission. Possible issues were discussed and the sub-group will discuss this objective at the 2006 CORESTA Congress in Paris. Final details of the screening protocol have not been released. Preliminary details of the screening protocol can be obtained from Anne Jack, University of Kentucky.

Completed or Modified Objectives

Objective 2: Develop guidelines or suggested critical survey questions for farmer practice surveys so that results can be compared within and between tobacco origins.

Status: Completed

Objective 3: Develop a collaborative study to investigate standard deviation for moisture content within farmer marketing packages among origins. **Status: Dropped (**Objective 3 was reassessed at the CORESTA Congress in Kyoto, Japan and the Task Force proposed that this objective be dropped. Although moisture content is known to be a contributing factor in the development of TSNA, deviation within a marketing package is though to be of less importance than average moisture content. However, moisture in the marketing package is still a concern along with the storage of tobacco and the influence of ventilation during storage (see Objective 6).

Objective 5: Resolve sample handling of post cure tobacco for TSNA determination.

Status: Completed (a sampling protocol was developed)

All activities and reports of Sub-Group TSNA in Air-cured Tobacco can be viewed online at: <u>www.uky.edu/AG/Tobacco/CORESTA.htm</u>.