



Study Results for the Joint Cotton Fungibility Working Group

How is the Cotton and Tobacco Program (C&T) involved?

The Joint Cotton Fungibility Working Group is made up of the Cotton Flow Committee and the Quality Task Force. The working group requested that C&T perform several studies pertaining to the possibility of averaging color grade and leaf grade along with the other classification factors. The result would be a module that has the exact same quality measurements on all bales in the module.

What are the study results?

To date, several studies have been performed including:

- Averaging all bales with Color and Leaf included.
 - This study showed that there can be significant differences in variability from module to module and in different color and leaf grades.
- The working group requested C&T look at only 4-bale modules to study variability.
 - This study involved taking all modules originally submitted as 16 bales and separating them into four different 4-bale modules since a very small amount of original 4-bale modules are submitted for classification.
 - The standard deviations for this study showed less variability in the data although some lower color and leaf grades still had significant variability.
 - The chart below has the 16-bale module on top with the standard deviations highlighted in **red** with the same 3,869,700 bales averaged into 4-bale modules with the standard deviations in **green**. The data is also listed by crop year. The yellow line highlights the difference showing the 4-bale modules have lower standard deviations for all quality measurements.

		#Bales	CRd	PlusB	Area	Cnt	Mic	Str	Len	Uni
16-Bale Modules	Total Bales	3,869,700	0.67	0.19	0.08	5.57	0.12	0.98	0.018	0.82
	2021	1,301,680	0.65	0.18	0.09	5.59	0.11	0.99	0.018	0.82
	2022	1,420,789	0.68	0.19	0.07	5.34	0.12	0.98	0.019	0.82
	2023	1,147,231	0.68	0.19	0.08	5.83	0.12	0.98	0.017	0.80
	16 vs 4 Bale Difference		0.17	0.04	0.01	0.76	0.03	0.09	0.002	0.07
		#Bales	CRd	PlusB	Area	Cnt	Mic	Str	Len	Uni
4-Bale Modules	Total Bales	3,869,700	0.50	0.15	0.07	4.81	0.09	0.89	0.016	0.75
	2021	1,301,680	0.48	0.14	0.08	4.84	0.08	0.90	0.015	0.75
	2022	1,420,789	0.50	0.15	0.06	4.60	0.09	0.89	0.016	0.75
	2023	1,147,231	0.53	0.16	0.07	5.04	0.09	0.88	0.015	0.73

What's next?

C&T presented the latest study data at the Cotton Flow Committee meeting during the NCC Annual Meeting in Florida. The data was presented to the Quality Task Force in March 2024. C&T looks forward to engaging with the Joint Cotton Fungibility Working Group and their recommendations going forward.

What is the Module Averaging Participation rate?

During the 2023 crop, 61.7% of all gins participated at least partially with module averaging and 62.1% of all bales classed were module averaged.

