



ANNUAL CANARYGRASS
(*Phalaris canariensis* L.)

Proposed denomination: 'CDC Togo'
Application number: 04-4202
Application date: 2004/05/14
Applicant: University of Saskatchewan, Saskatoon, Saskatchewan
Breeder: Pierre Hucl, University of Saskatchewan, Saskatoon, Saskatchewan

Varieties used for comparison: 'CDC Maria' and 'Cantate'

Summary: 'CDC Togo' has a glabrous sheath and blade of the lower leaves and flag leaf blade while the lower leaf sheath and blade and flag leaf blade of 'Cantate' is strongly pubescent. The flag leaf sheath of 'CDC Togo' is glabrous while it is slightly pubescent in 'Cantate'. 'CDC Togo' takes longer to head than 'CDC Maria'. The flag leaf of 'CDC Togo' is slightly shorter than 'CDC Maria' and 'Cantate'. 'CDC Togo' is taller at maturity than 'Cantate' and slightly taller than 'CDC Maria'.

Description:

COLEOPTILE: purple colour at the one leaf stage, reddish to purple in field at four leaf stage.

SEEDLING: erect juvenile growth habit, glabrous sheaths and blades of lower leaves

PLANT: glabrous flag leaf sheath and blade

SEED: glabrous glume and lemma

Origin and Breeding: C99048 was selected from the cross of Cantate / CDC Maria made in 1995 at the University of Saskatchewan, Saskatoon, Saskatchewan using the approach method in a greenhouse. In the F₂, putative F₁ derived F₂ families were screened for segregation of hull pubescence. 5 out of 355 families segregated. The glabrous segregants were harvested and subsequently advanced in a growth room via single seed descent in the F₃ generation. C99048 is derived from a bulked F₄ panicle hill. It was selected in the F₅ for glabrous hulls and higher grain yield relative to CDC Maria. In the F₆ and F₇ generations C99048 was selected on the basis of higher grain yield and heavier seed weight. C99048 was later named 'CDC Togo'.

Tests and Trials: Test and trials were conducted at the University of Saskatchewan during the summers of 2004 and 2005. There were 4 reps arranged in an RCB design. Plots consisted of 4 rows, 3.6m long with a row spacing of 30.3cm.

Comparison table for 'CDC Togo'

	'CDC Togo'	'CDC Maria**'	'Cantate**'
<i>Days to heading (# days from planting to where 50% of heads fully emerged from boot)</i>			
mean (LSD=0.46)	60	58	60.4
<i>Flag leaf length (cm)</i>			
mean	10.74	12.57	12.27
std. deviation (LSD=1.08)	2.96	5.53	2.41
<i>Plant height (at maturity) (cm)</i>			
mean	117.8	115.0	109.67
std. deviation (LSD=1.63)	5.85	5.35	7.12

Maturity (days from planting to maturity)

mean (LSD=1.17)	102.5	101	106
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* reference variety

Note: standard deviations are based on a sample size of 80 plants while the LSD's are based on plot means.



Canarygrass: 'CDC Togo' (left) with reference varieties 'CDC Maria' (center) and 'Cantate' (right)



Canarygrass: 'CDC Togo' (left) with reference varieties 'CDC Maria' (center) and 'Cantate' (right)