

Cereal Chemistry The premier, peer-reviewed grain science journal

GRAIN SCIENCE LIBRARY H

AACCI HOME

Enter Keywords

Advanced Search

First Look

Current Issues (Issues since 1997)

Back Issues (Issues prior to 1997)

Free Sample Issue

View Most Downloaded Articles

Advertising & Partnerships

Classic Papers

I NSI DE

Editorial Board

Author Instructions

Submit a Manuscript

Subscribe

Online e-Xtras

Forgotten Password?

Recommend to your Library

Cereal Chemistry Bimonthly ISSN 0009-0352

	j			-	No.	P
HOME	ONLINE JOURNALS	ONLINE BOOKS	SUBSCRIBE	E	-ALERTS	AACCI HOM
Abstract					<u>Share</u> Add to favorites	
January/February 2011, Volume 88, Number 1 Pages 45-50 http://dx.doi.org/10.1094/CCHEM-04-10-0067					E-mail to a colleague	
					Alert me when new articles cite this article	
Determining Weight and Moisture Properties of Sound and Fusarium-Damaged Single Wheat Kernels by Near-					Download to citation manager	
K. H. S. Peiris ¹ and F. E. Dowell ^{2,3}					Related content found in AACCI's Grain Science Library	
¹ Dept. Bi Manhatt	ological and Agricultural an, KS.	Eng., Kansas State l	Jniversity,			
² USDA-A Manhatt	RS, CGAHR Engineering an, KS,	& Wind Erosion Rese	earch Unit,			
³ Corresponding author. E-mail: Floyd.Dowell@ars.usda.gov				Did you know		
<u>PDF Print</u>	(237 kB) PDF with Link	<u>(239 KB)</u>				
Open /	Access.					
Single ke other qua on a dry v price. Als grain trai is a stron measurer wheat kei two whea <i>Fusarium</i> develope kernels o other cult kernels fr determina (SECV) o 2137 with and RPD both culti using the calibratio for evalua mass/ker need to o kernel sp highlighte	rnel moisture content (M lity traits in single kerner weight basis. MC also aff o, if near-infrared (NIR) ts, the influence of water g absorber throughout the nent of MC, fresh weight rnels with or without <i>Fus</i> it cultivars with three vise damage and a range of d either from all kernel of f one cultivar that were the tivar. A calibration mode for the wheat cultivar Ja ation (R^2) of 0.77 and st f 1.03%. This model pre- vars predicted MC, fresh etter than models that u vars. Single kernel wate actual fresh weight of k ns that used all kernels of ating and expressing com nel basis rather than a p vercome the effects of k ectra before using in calibra.	IC) is important in the less because many tra- rects viability, storag spectroscopy is used r must be accounted ne NIR region. The fea- region of the second of the arium damage was in ually selected classe MC. Calibration mode classes or from only then validated using I developed for MC was agalene had a coeffic andard error of predictio Is developed using a weight, dry weight, sed only undamaged r mass was more account or undamaged kerne istituent levels in sin- percentage basis was iternel size and water ibration model developed	e measurement o its are expressed e quality, and d to measure for because water easibility of iter mass of single nvestigated using s of kernels with lels were undamaged all spectra of the then using all ient of s validation wheat cultivar n (SEP) of 1.02% Il kernels from or water mass in l kernels from curately estimated ted by Is. The necessity gle kernels on a elaborated. The mass on single opment was also	f F		

Cited by

Development and Evaluation of a Near-Infrared Instrument for Single-Seed Compositional Measurement of Wheat Kernels Paul R. Armstrong Cereal Chemistry 2014, Volume 91, Number 1: , 23-28 Abstract | PDF Print | PDF with Links



AACCI Home | Contact Us | Privacy Statement | Copyright AACC International