

Title Development and validation of on-farm sampling methods for the collection of marketing (quality) samples at harvest

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Abstract

This paper examines the accuracy of different grain sampling methods by sampling on farms at harvest during 2002 and 2003. A number of different methods of sampling are compared along with the consequences of using composite samples. Results showed that there were no statistically significant differences between the sampling methods used for any of the parameters measured (moisture content, dry matter, protein, nitrogen, hardness, specific weight, and fines) except for specific weight where use of a grain spear resulted in a significantly higher reading than other methods. Significant variation occurred between farms and fields but generally not within fields, i.e. trailers sampled coming from the same field. Using these results the effects of sampling intensity are discussed and proposals made on the number of samples required to obtain a reliable estimate of the quality, whilst at the same time ensuring that the sampling protocol is manageable within current farming systems.