

Title Automatic Control of Crossflow Grain Dryers, Part 3: Field Testing of a Model-Predictive Controller  
Author Qiang Liu and F. W. Bakker-Arkema  
Citation Journal of Agricultural Engineering Research, Volume 80, Issue 3 , November 2001, Pages 245-250  
Keywords grain; drying

### **Abstract**

In Part 3 of the paper on automatic control of crossflow grain dryers, the field testing of newly developed model-predictive controller is described. The system showed excellence in accuracy, stability and robustness. The moisture content of maize was controlled to be within  $\pm 0.7\%$  w.b. of the moisture content to the set-point, at inlet-moisture contents ranging from 21 to 32% w.b. and drying-air temperatures from 85 to 120°C. The controller also displayed excellent compensation characteristics to changes in the drying-air temperature.