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**RAPID STRIP TEST KIT FOR THE DETECTION OF AFLATOXIN IN  
CORN USING ETHANOL EXTRACTION METHOD**ZHENG, M. Z.<sup>1)</sup>, TONG, K. S.<sup>1)</sup>, BINDER, J.<sup>1)</sup> and BREWE, C.<sup>2)</sup>

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Rapid strip test kits (AgraStrip™) were validated to test total aflatoxins in corn using ethanol extraction method at cutoff levels of 4ppb, 10ppb and 20ppb, respectively. The test is a one-step lateral flow immunochromatographic test based on a competitive immunoassay format. An antibody-particle complex is dissolved in assay diluent and mixed with the sample extract in microwells. The mixed content then migrates onto a membrane, which contains a test zone and a control zone. The test zone captures free antibody-particle complex, allowing color particles to concentrate and form a visible line. A positive sample with total aflatoxins greater than the cutoff level will result in no visual line in the test zone. Alternatively, a negative sample with total aflatoxins less than the cutoff level will form a visible line in the test zone. One line will always be visible in the control zone regardless of the presence of aflatoxins. The test is a rapid semi-quantitative method with assay results to be obtained within 5 minutes. Validation studies assessed the accuracy of test kits by using ethanol as sample extraction solvent. Results indicated that tests are accurate and effective for semi-quantitative measuring total aflatoxins greater or less than the cutoff levels in corn.