

## **Glyphosate in Yellow Peas Sample Preparation for Strip Test**

### **1. Intended Use**

For the detection of Glyphosate in Yellow Peas.

### **2. Sensitivity**

50 ppb in matrix

### **3. Materials and Reagents Required**

Analytical balance

15 mL or greater volume size of plastic/glass bottles or vials

Serological pipette or graduated cylinder

Microcentrifuge tubes, 2.0 mL

Microcentrifuge device capable of  $\geq 8000 \times g$

Disposable pipettes (optional)

Timer

Rotator and/or shaker

Blender or grinder device (i.e. food processor, coffee bean grinder, etc.)

Deionized or distilled water

ABRAXIS<sup>®</sup> Glyphosate Strip Test (PN 500095 [20T]; PN 500098 [5T])

Micropipettes with disposable plastic tips (optional)

Vortex mixer (optional)

### **4. Notes and Precautions**

This procedure is intended for use with yellow peas. Samples should be ground into a powder-like consistency using a blender or grinder device (i.e. food processor, coffee bean grinder, etc.). Other matrices should be thoroughly validated before use with this procedure.

### **5. Sample Preparation Procedure**

5.1 Weigh 0.5 g of sample powder into an appropriately labeled bottle or vial.

5.2 Add 10 mL of deionized or distilled water. Vortex or shake to mix.

5.3 Place sample bottle/vial onto rotator or shaker for 10 minutes.

5.4 Let sample settle for 2 minutes. Transfer 2 mL of extract to an appropriately labeled microcentrifuge vial.

5.5 Centrifuge for 5 minutes at  $\sim 8000 \times g$ . Make sure the centrifuge is properly balanced.

5.6 Dilute 0.4 mL of supernatant in 1.6 mL of deionized or distilled water in an appropriately labelled vial.

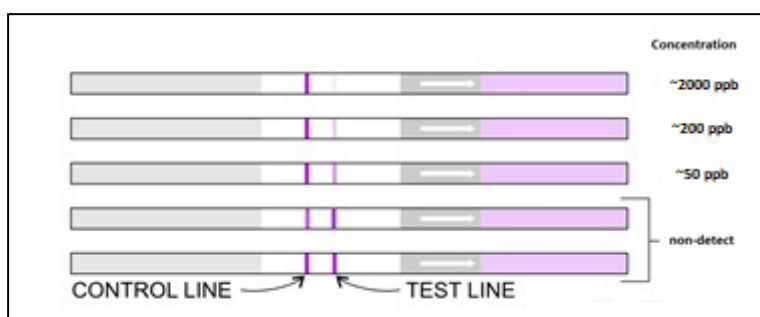
5.7 Proceed to Sections E (Test Preparation) and F (Testing of Samples) in the ABRAXIS<sup>®</sup> Glyphosate Strip Test Kit user's guide.

### **6. Evaluation of Results**

Yellow peas sample concentration is determined by comparison of the intensity of the test line to the intensity of the control line on the same test strip. Although control line intensity may vary, a visible control line must be present for results to be considered valid. Test strips with a test line which is darker than or of equal intensity to the control line indicates a result, which is below the limit of detection of the test. Test strips with a test line, which is lighter than the control line indicates a result, which is between 50 ppb and 2000 ppb. Test strips with a very faint test line or no test line visible indicates a result, which is  $> 2000$  ppb. Results should be determined within 5-10 minutes after completion of the strip test procedure. Determination made using strips which have dried for more or less than the required time may be inaccurate, as line intensities may vary with drying time.

<u>Control Line</u>	<u>Test Line</u>	<u>Interpretation</u>
No control line present	No test line present	Invalid result
Control line present	Very faint or no test line present	>2000 ng/mL (ppb)
Control line present	Moderate intensity test line present	Between 50 and 2000 ng/mL (ppb)

The appearance of test strips may also be compared to the illustration below to determine approximate sample concentration ranges. Please note that the illustration is intended for the demonstration of test line to control line intensity only. Results should not be determined by comparing the intensity of test lines from test strips to the test line intensity of the illustration, as the overall intensity of test strips may vary slightly with different lots of reagents. To obtain semi-quantitative results in the range of 0-2000 ppb, solutions of known Glyphosate concentration (control solutions) must be tested concurrently with samples. Sample test line intensities can then be compared with control solution test line intensities, yielding approximate sample concentrations. Do not use strips run previously to determine semi-quantitative sample concentrations, as test line intensities may vary once strips are completely dry.



### 7. Performance Data

The ABRAXIS® Glyphosate Strip Test for yellow peas samples will detect in the range of 50 ppb or higher due to the 100-fold dilution required during sample preparation. At this level, the test line exhibits moderate intensity. At levels greater than 2000 ppb, the test line is faint or not visible.

### 8. For ordering or technical assistance contact

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