

**ROSA® FAST5 Fumonisin Quantitative Test Flow Chart**

15 FAST5  
FAST5

See Approved Commodities Below

**Test Ranges:**  
0 to 1.5 ppm  
0 to 6 ppm


**Charm-Validated Commodities:**

<sup>A</sup>2:1 Extraction Ratio: Barley, Corn, Corn Gluten Meal, Flaking Corn Grits, Millet, Oat Groats, Rough Rice, Sorghum, Wheat


<sup>B</sup>3:1 Extraction Ratio: Distillers Dried Grain with Solubles (DDGS)

<sup>C</sup>3:1 Extraction Ratio: Corn Germ Meal


Sample Preparation



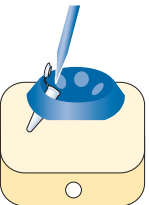
**(1) Weigh**  
Ground sample<sup>D</sup>  
**50 g**  
or 10 g




**(2) Add Solvent**  
70% Methanol  
**100 mL<sup>A</sup> / 150 mL<sup>BC</sup>**  
or 20 mL<sup>A</sup> / 30 mL<sup>BC</sup>



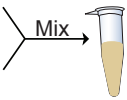
**(3) Extract**  
Shake vigorously or blend for 1 minute; do not exceed 2 minutes



**(4) Clarify**  
Centrifuge, filter or allow sample to settle

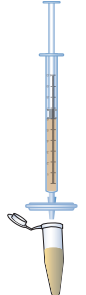


**(5) Dilute<sup>E</sup>**  
Prepare Diluted Extract



Mix  
**Diluted Extract**


**Filter for:**  
Barley and Wheat



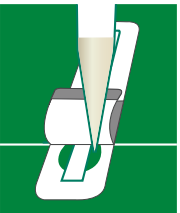
Pass Diluted Extract through RC15 filter

<sup>D</sup>50 g is the Charm recommended sample weight, 10 g is an optional sample weight  
<sup>E</sup>Diluted Extract for corn germ meal samples cannot be assayed, continue to prepare and assay 2nd Diluted Extract


Test Procedure



**(1)**  
Place test strip in ROSA Incubator or Charm EZ<sup>®</sup>-M system.  
For Charm EZ-M system select appropriate test, commodity and dilution if prompted.



**(2)**  
Peel tape.  
Pipet 300 µL **Diluted Extract** into sample compartment.  
Reseal tape.

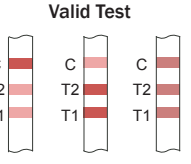


**(3)**  
Close lid.  
Incubate for 5 minutes.

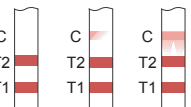
Read Result

**(1) Inspect test strip**

**Valid Test**



**Invalid Test**



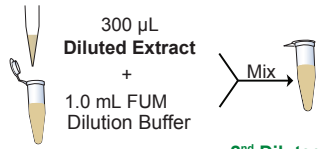
**(2) Read result with ROSA-M Reader or Charm EZ-M system**

**ROSA-M Reader:** Select FUM channel in 3-line mode (blinking) and appropriate MATRIX.

**Charm EZ-M system:** Select appropriate test, commodity and dilution if prompted.

Extraction Ratio	Sample (Dilution)	MATRIX	Quantitation Range	LOD
<b>2:1<sup>A</sup></b>	Diluted Extract (DE)	00	0.5 to 1.5 ppm	0.25 ppm
	2 <sup>nd</sup> Diluted Extract (2ND DE)	01	1 to 5.4 ppm	-
<b>3:1<sup>B</sup></b>	Diluted Extract (DE)	03	0.5 to 1.5 ppm	0.25 ppm
	2 <sup>nd</sup> Diluted Extract (2ND DE)	04	1 to 5.4 ppm	-
<b>3:1<sup>C</sup></b>	2 <sup>nd</sup> Diluted Extract (2ND DE)	01	1 to 5.4 ppm	-

**For quantitation of 1 to 5.4 ppm:**



300 µL Diluted Extract + 1.0 mL FUM Dilution Buffer  
Mix  
**2<sup>nd</sup> Diluted Extract**

- (1) Prepare 2<sup>nd</sup> Diluted Extract**
- (2) Repeat Test Procedure (steps 1, 2, 3) with 2<sup>nd</sup> Diluted Extract**
- (3) Read Result**