

ROSA® FAST5 Fumonisin Quantitative Test Flow Chart



See Approved Commodities Below

Test Ranges:
0 to 1.5 ppm
0 to 6 ppm
0 to 25 ppm

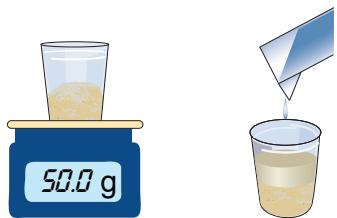
Charm-Validated Commodities:

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

B 3:1 Extraction Ratio: Distillers Dried Grain with Solubles (DDGS)

C 3:1 Extraction Ratio: Corn Germ Meal

Sample Preparation



(1) Weigh

Ground sample
50 g



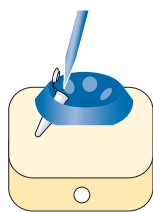
(2) Add Solvent

70% Methanol
100 mL^A/ 150 mL^{BC}



(3) Extract

Shake vigorously or blend for 1 minute; do not exceed 2 minutes.



(4) Clarify

Centrifuge or allow to settle



100 µL Extract^C
+
1.0 mL FUM Dilution Buffer
Mix
^C158 µL Extract for Corn Germ Meal

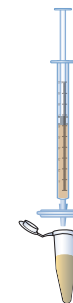
(5) Dilute^C

Prepare **Diluted Extract**



Diluted Extract

Filter for:
Barley and Wheat only



Pass Diluted Extract through RC15 Filter



300 µL Diluted Extract
+
1.0 mL FUM Dilution Buffer
Mix

(6) Dilute

Prepare **2nd Diluted Extract**

2nd Diluted Extract

^CDiluted Extract for corn germ meal samples cannot be assayed, continue to prepare and assay 2nd Diluted Extract

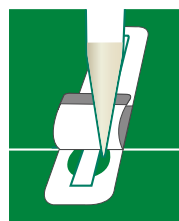
Test Procedure



(1)

Place test strip in ROSA Incubator or Charm EZ[®]-M system.

For Charm EZ-M system, select appropriate test, commodity, and dilution if prompted.



(2)

Peel tape.
Pipet 300 µL **Diluted Extract** or **2nd Diluted Extract** into sample compartment.

Reseal tape.

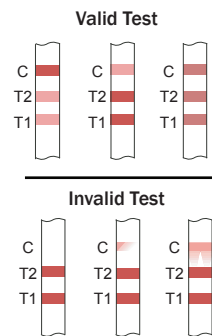


(3)

Close lid.
Incubate for 5 minutes.

Read Result

(1) Inspect test strip



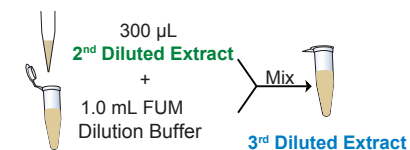
(2) Read result with ROSA-M Reader or Charm EZ-M system

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
2:1^A	Diluted Extract (DE)	00	0.5 to 1.5 ppm	0.25 ppm
	2 nd Diluted Extract (2ND DE)	01	1 to 5.4 ppm	-
	3 rd Diluted Extract (3RD DE)	02	5 to 25 ppm	-
3:1^B	Diluted Extract (DE)	03	0.5 to 1.5 ppm	0.25 ppm
	2 nd Diluted Extract (2ND DE)	04	1 to 5.4 ppm	-
	3 rd Diluted Extract (3RD DE)	05	5 to 25 ppm	-
3:1^C	2 nd Diluted Extract (2ND DE)	01	1 to 5.4 ppm	-
	3 rd Diluted Extract (3RD DE)	02	5 to 25 ppm	-

For quantitation of 5 to 25 ppm:



- Prepare 3rd Diluted Extract**
- Repeat Test Procedure (steps 1, 2, 3) with 3rd Diluted Extract**
- Read Result**