

ROSA® FAST5 Zearalenone Quantitative Test Flow Chart

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See Approved Commodities Below

Test Ranges: 0 to 350 ppb
0 to 1400 ppb

Charm-Validated Commodities:

Barley, Brewer's Rice, Corn, DDGS^A, Flaking Corn Grits, Milled Rice, Oat Groats, Rough Rice, Sorghum, Wheat, Wheat Bran^B, Wheat Flour

Charm-Validated Commodity:

Rice, Rye

Sample Preparation

(1) Weigh
Ground sample
50 g

(2) Add Solvent
70% Methanol
100 mL/ 150 mL^A/ 200 mL^B

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

(4) Clarify
Centrifuge, filter or allow to settle

(5) Dilute
Prepare **Diluted Extract**

^A DDGS requires a 3:1 extraction ratio

^B Wheat Bran requires a 4:1 extraction ratio

Filter for:

Rye and Wheat Bran only

Pass Diluted Extract through GF/CA Filter

Filter for:

All other commodities

Pass Diluted Extract through RC15 Filter

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** 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 ZEAR 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	Diluted Extract (DE)	00	50 to 350 ppb	15 ppb
	2 nd Diluted Extract (2ND DE)	01	300 to 1000 ppb	-
3:1 ^A	Diluted Extract (DE)	02	50 to 350 ppb	20 ppb
	2 nd Diluted Extract (2ND DE)	03	300 to 1000 ppb	-
4:1 ^B	Diluted Extract (DE)	04	50 to 350 ppb	25 ppb
	2 nd Diluted Extract (2ND DE)	05	300 to 1000 ppb	-

For quantitation of 300 to 1000 ppb:

(1) Prepare 2nd Diluted Extract

(2) Repeat Test Procedure (steps 1, 2, 3) with 2nd Diluted Extract

(3) Read Result