

## Ezam/ExamNet notes on using "Irregular" bins to interpolate USDA bin charts. 1/26/11

### Irregular and Irregular-Round

Select bin type "Irregular" or "Irregular-Round" when duplicating an official USDA Bin Chart or, if the bin is not described by any of the ExamNet's Bin Types. Classifying a bin as "Irregular" simply means that this bin's bushels-per-foot figure will not be calculated from bin dimensions. Instead, the bushels-per-foot is to be taken directly from a USDA Bin Chart. USDA classifies bin shapes as A, B, C, D, E, F, G, and H (see figure below). In ExamNet, all 8 types are handled with just two bin types: "Irregular" and "Irregular-Round". Use the figure below to match up the style of bin as defined by USDA with the corresponding ExamNet bin type.

#### Irregular-Round

Select bin type "Irregular-Round" when the bin is a cylindrical (type "A" in the figure below). There are also three types of interstice bins that are classified as "Irregular-Round" bins. These are USDA bin types "B", "C", and "D".

When calculating Irregular-Round style bins, ExamNet estimates the diameter of the Irregular-Round bin. It does so by a) assuming the bin is cylindrical and b) imputing the diameter dimension required to compute a Bu/Ft figure equivalent to that entered. The result is placed in the "Est. Diameter" field.

Calculating an estimate for diameter on Irregular-Round bins allows ExamNet to apply the "Level-Off" features (such as 'Cone Up' and 'Cone Down') even on Irregular-Round bins where the diameter is not recorded on the Bin Chart. Note that using Level-Off feature is NOT recommended if an Irregular-Round bin is of type B, C, or D.

#### Irregular

The "Irregular" bin type is used for square (type "H"), rectangular, and "E", "F", "G", and "Ga" interstice bins from a USDA Bin Chart. Use the four (4) parameters described below to correctly set-up an Irregular bin:

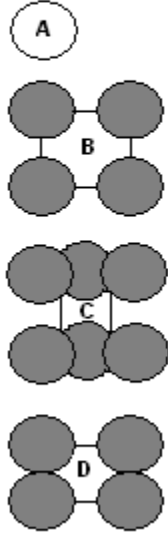
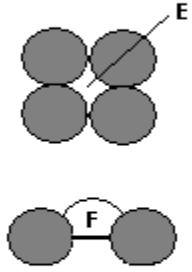
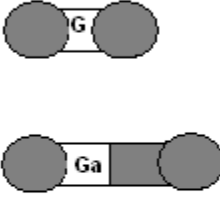

*Bu/Ft* enter the bushels per foot for this bin as it appears on USDA Bin Chart.

*Sq/Ft* enter the bin's square footage as an ALTERNATIVE to Bu/Ft. If Bu/Ft is known, then skip this field.

*#Curved Sides* The easiest way to delineate between them is to simply enter how many sides of the interstice are curved. By counting the curved sides, you will correctly establish the base pack percentage for bin types "E", "F", "G" and "Ga". If the bin is rectangular or square (i.e. type "H"), simply enter '0'.

*Adj. Bin Dia.* enter the adjacent bin diameter. That is, the diameter of the largest bin that causes this bin to have a curved wall. If more than one diameter bin surround the interstice, use the largest diameter. If the bin is rectangular or square (meaning no adjacent bins have a diameter) then simply enter '0'.

**Examlet Bin Types related to USDA Warehouseman Handbook Bin Types A through H**

<u>Irregular-Round</u>	<u>Irregular with 3 or 4 Curved Sides</u>	<u>Irregular with 1 or 2 Curved Sides</u>	<u>Irregular</u>
<p data-bbox="280 495 423 527"><b>Type A,B,C,D</b></p> 	<p data-bbox="553 516 678 548"><b>Type E or F</b></p> 	<p data-bbox="818 506 976 537"><b>Type G and Ga</b></p> 	<p data-bbox="1089 516 1166 548"><b>Type H</b></p> 

**note: type "Ga" is not defined by USDA but has been observed in official bin charts.**