How can we group the good grains.. Which wheat is good to buy...

Wheat can be classified in three ways:

Colour (e.g., red, yellow, white)

Planting season: spring wheat, planted in the spring and harvested in early fall; winter wheat, planted in the fall, harvested the following summer

Characteristics of the grain: durum, hard bread wheat, and soft wheat

In Canada, hard spring wheat suitable for yeast products is grown on the Prairies. In southern Alberta, where winters are not as severe, some hard winter wheat is grown. Irrigated land in Alberta also produces some white soft winter wheat. The main soft white winter wheat growing area is southern Ontario.

Now let us see thd data of the wheat , try to have the groups of wheat which are similar to each other based on multople features.

The examined group comprised kernels belonging to three different varieties of wheat: Kama, Rosa and Canadian, 70 elements each, randomly selected for the experiment.

High quality visualization of the internal kernel structure was detected using a soft X-ray technique. It is non-destructive and considerably cheaper than other more sophisticated imaging techniques like scanning microscopy or laser technology.

The images were recorded on 13x18 cm X-ray KODAK plates. Studies were conducted using combine harvested wheat grain originating from experimental fields, explored at the Institute of Agrophysics of the Polish Academy of Sciences in Lublin.

How we can help identify the similar wheat..

Attribute Information:

To construct the data, seven geometric parameters of wheat kernels were measured:

1. area A,
2. perimeter P,
3. compactness C = 4*pi*A/P^2,
4. length of kernel,
5. width of kernel,
6. asymmetry coefficient
7. length of kernel groove. All of these parameters were real-valued continuous.