**“Jam tomorrow, jam yesterday… but never, ever jam today.”- Lewis Carroll**

**Jams, jellies, conserves, marmalades, butters & preserves**

* Jams- juice and flesh of fruit
* Jellies- homogenous fruit juice
* Conserves- mixture of fruits and usually additions of nuts, raisins and coconut
* Marmalades- mixtures of citruses with the rinds of the citrus
* Butters- blended fruit, pureed and excess water removed
* Preserves- uniform solid fruit placed in a syrup

**History**

* Quince and honey called *melomeli* (derived from Latin for apple and honey) was considered an aphrodisiac and aided in digestion in the mid-17th century. Sugar was extremely expensive but a route to the West Indes made sugar and spices available.
* After sugar was made cheap, jam was made available to commoners to smear on bread in 1880.

**Science**

* Jams are the result of a gel (liquid dispersed in a solid)
* Gels are made possible from the pectin. Fruits have pectin (high pectin sources are grapes, apples, blackberries).

**Pectin**

* Pectin forms a mesh or matrix and traps the sugary liquid in a gel. It cradles and suspends pieces of fruit in the jam.
* Pectin is naturally found in the inner skin, “albedo” or pith of citrus and apples. Derived from the Latin word *pektikos* (means congealed). It is the cement of fruit found in the cell walls.

**Acidity**

* The pH must be 4.6 or lower to ensure proper food safety. Too much acid will make the gel not work.
* Some fruits are extremely high in natural acidity. Low acid fruits like blueberries need added acid from lemon juice or other sources to detour microbial growth in the jam.

**Sugar**

* Jams are usually 60% sugar and highly acidic.
* Sugar helps in setting, keeps color and preserves texture.
* Low sugar jams do not keep as long. Should be used within six months or kept in the refrigerator for up to one year.

**Sanitation**

* Practice sanitation: clean jars and lids, high temperatures for jars/lids/jams.
* Use water bath canning.

***Questions: National Center for Home Preservation- www.nchfp.uga.edu***