## MAKING WINE VINEGAR

Although spoiled wine will generally contain some vinegar, the quality is apt to be poor. By using a pure vinegar bacteria culture and a good wine, an excellent wine vinegar can be made. To maintain the purity, the containers and covers need to be sanitized with chlorine bleach water (use about one oz. of bleach to a gal. of water) and well rinsed with hot water.

The bacteria create the vinegar by converting alcohol in a fermented beverage to acetic acid. The process requires air and moderately warm temperature, 80 to 95 °F. A variable temperature which cycles on a daily basis is helpful in providing the necessary air.

The first stage of the process makes a much increased amount of the vinegar "mother" from the purchased 8 oz. starter culture. Although the vinegar produced in this first step can be used as such, a much more worthwhile amount can be made as a second step in a larger container using the vinegar and mother from the first step. From there the culture can be propagated indefinitely, or scaled up to even larger batches.

It is important not to use a wine that is already turning or which may be contaminated. The best way to be sure of this is to take it from a freshly opened bottle. Use the recipe on the starter culture label, but do not use a one gal. glass jug. Instead, use a one quart mason jar or similar large mouth container. Pour the wine and water back and forth several times between two containers to aerate well. Then combine the wine, water and starter culture in the mason jar and cover with a saucer or small plate. The large mouth container is necessary if we are to recover the mother for the next stage. When the mother forms as a skin on the liquid surface, it becomes tough as leather, making it nearly impossible to remove through a small mouth opening.

Covering the jar with a small plate keeps the contents clean, but allows the container to "breathe" with temperature changes to bring a fresh supply of air which the bacteria needs to work and grow. Place the jar in a location where it will be warm (not hot) part of the time. The jar should be left undisturbed until <u>at least</u> a 1/8 inch thick mother forms. This will normally take several months. For the next stage we recommend a one gal (or 4 liter) jar like those used to package restaurant supplies such as pickles or salad dressing. Repeat the same procedure as above with larger volumes of wine and water. Using one and a half 750 ml. bottles of wine and one bottle of water will work well. Remember to aerate the wine and water mixture, then pour in the whole batch of vinegar and mother from the first stage. Cover and continue in the same location as above. If desired, a 15 liter (4 gal.) vinegar cask with a bottom spigot is available to make even larger batches.