

RIPENING & AGING GUIDELINES

Cheese needs a warm, moist environment with proper air circulation and oxygen-carbon dioxide exchange in order to develop. The rate of development is influenced by its ripening or aging environment's temperature, the relative humidity (RH), and the degree of air circulation and ventilation in combination with the appropriate range of acidity (pH), moisture content, and salt content in the cheese. The size of a cheese as well as the number of them within a given space also influences the rate of development. One cheese within the space will create one level of humidity whereas more than one cheese in that same space will result in a higher humidity. Lower temperatures and humidity generally equate to slower cheese development. Cheeses with higher moisture levels will ripen faster; smaller cheeses faster than larger ones. If the humidity in the ripening area is too low, or the air circulation is too high, moisture will be drawn from the cheese, resulting in poor mold, bacteria or rind development, a cracked rind or surface, or too dry an interior. It is in this final stage of development that the art of cheese making becomes apparent. The experience and creativity of the cheese maker come together one final time to help shape the finished character of the cheese. Your goal as the cheese maker is to attain the best conditions for the proper balance of temperature, humidity, and air circulation in order to produce the desired cheese.

Humidity & Temperature

Most cheeses require relatively high humidity and a temperature range of 50-55 degrees F to age properly. The range of effective humidity should be no less than 75 percent RH and no greater than 95 percent RH. Cold storage refrigeration (38-40 degrees F) is kept around 65 percent humidity. The ideal cheese cave temperature used for aging is 50 degrees F. Most home cellars are 40- 55 degrees F which make them a desirable aging environment. Humidity will need to be monitored and adjusted to the required levels. A temperature and humidity-controlled home refrigerator or wine cooler set with a temperature range of 50-60 degrees F also works well.

Each style of cheese is aged in the generally accepted temperature and relative humidity range as listed below. The ranges may differ for a specific cheese in which case the temperature and humidity will need to be adjusted accordingly as stated in the individual formulas. Professional cheese makers often adjust the aging conditions to accomplish specific results, sometimes moving cheeses to different temperature and humidity environments within their development. As one example, some cheese makers set up the rinds of firm cheeses by placing them in refrigeration with good air circulation for a few days up to a couple of weeks before waxing the surface or moving them to a different environment to finish aging.

Maintaining Proper Air Circulation

Along with temperature and humidity control, proper air circulation is critical to the successful development of a cheese. A well ventilated space with consistent low air flow is the generally accepted environment for aging most cheeses. One which is too breezy, whether from a natural breeze or an electric fan, with aggressive air

circulation, can dry out a cheese too quickly with negative results. However, low velocity air circulation from a refrigeration fan can assist in setting up the rinds of firm cheeses when placed in such an environment for a few days up to a few weeks. When ripened in a well ventilated aging room or space with consistent low air flow, the cheeses should be placed on mats on wood or food-safe shelves with adequate spacing between the shelves and the cheeses, allowing air to circulate around the surfaces of the cheeses. The use of low air flow in combination with regular turning of the cheeses, contributes to even moisture release and development.

For the home-based cheese maker, maintaining proper air circulation around a ripening cheese can be accomplished in a couple of ways. One is by placing the cheeses on open aging shelves in a temperature and humidity controlled 'cave', cellar, or adapted refrigerator. If using individual ripening boxes for each cheese, place the box lid slightly ajar to allow for some air flow or open the box lid for a period of time on a regular basis. This air flow allows for an exchange of oxygen (a sufficient supply of incoming air) and carbon dioxide (plus other gases produced by the developing cheese and released from inside the box). This exchange is necessary for proper development of the cheese. For some cheeses, at a designated point in their development the instructions will state to close the lid tightly. Those directions should be followed.