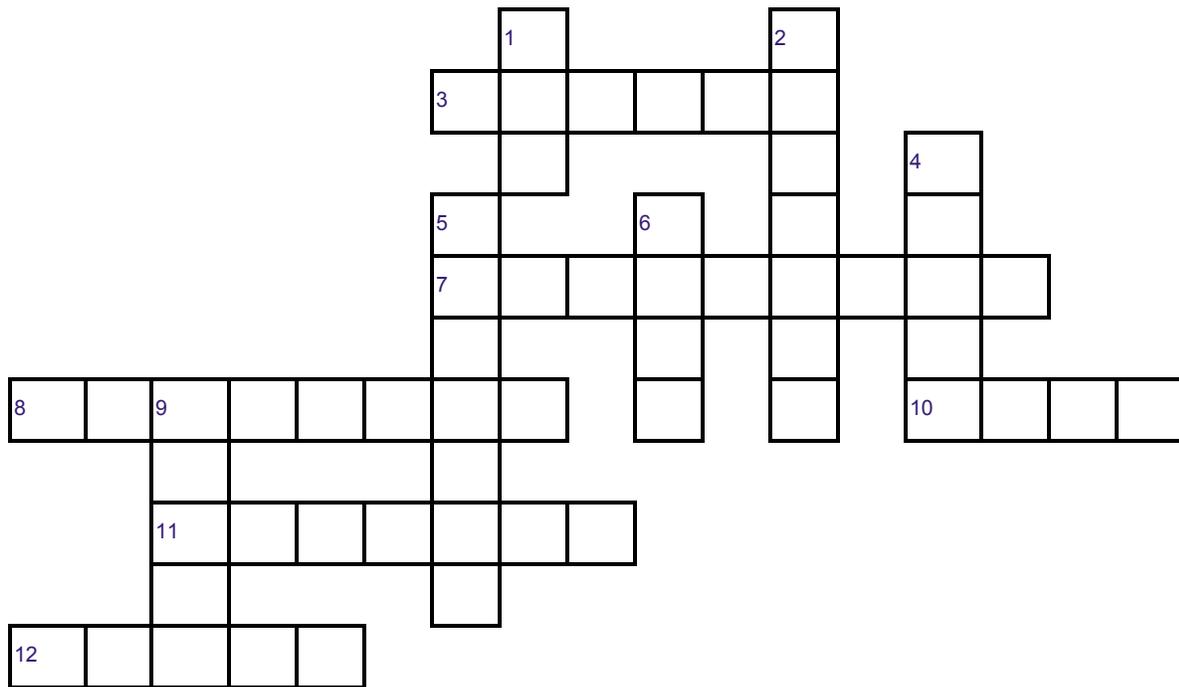


# MILK PRODUCTS CROSSWORD

Reference: Principles of Milk Cookery and Cheese Cookery (below)



## Across

3. Use a double \_\_\_\_\_ to prevent scum formation.
7. Acid foods should be \_\_\_\_\_ before being added to milk.
8. \_\_\_\_\_ in milk forms acid and may cause milk to curdle.
10. The protein in milk is adversely affected by \_\_\_\_\_ temperatures.
11. \_\_\_\_\_ is an example of an acid food.
12. These may form if acid is added to milk.

## Down

1. Use \_\_\_\_\_ heat when cooking milk.
2. The nutrient that milk cookery is based on.
4. Use \_\_\_\_\_ milk to prevent curdling
5. Cheese goes \_\_\_\_\_ at high temperatures
6. To prevent \_\_\_\_\_ formation use low heat.
9. \_\_\_\_\_ sauces while cooling to prevent a skin from forming.

# MILK PRODUCTS CROSSWORD

## PRINCIPLES OF MILK COOKERY



The basic principles of milk cookery are to use low heat and to avoid overcooking. Cooking at low heat prevents curdling and scum formation. The principle of using low heat is based on the milk protein, casein. High temperatures adversely affect protein.

A common problem in milk cookery is the scum that forms on the surface of milk as it is heated. It is less likely to form if the milk is heated while covered for a short time. The coagulated material that is deposited on the bottom and sides of the container in which milk is heated is protein and is likely to scorch when milk is heated directly over a burner.

**To prevent scum formation** (made up of protein, minerals and fat),

1. Use low heat – a double boiler or heavy saucepan help control the direct heat.
2. Cover sauces and puddings while they are cooling.

Another problem in milk cookery is the curdling of the sauce, pudding or cream soup on heating. Curdling is a result of the combination of acid (normally present in the milk) and milk protein. The process is exacerbated when milk is heated.

**To prevent milk from curdling,**

1. Thicken acid foods such as vinegar, lemon juice and tomatoes before they are combined with milk.
2. Use fresh milk because the bacteria in milk forms acid as it deteriorates and
3. Thicken the milk mixture before other foods that contain ingredients such as tannins, i.e. potatoes and high amounts of salt, i.e. ham are added to the mixture.

Neither scum formation nor curdling makes the finished product unsuitable for consumption, but both affect the appearance and palatability of the products.

## Thickened Sauces

When using milk in a thickened sauce it is necessary to take a couple of precautions to ensure a smooth and creamy final product. The lumps often found in sauces or soups are due to starch granules clumping together.

# MILK PRODUCTS CROSSWORD

**To prevent the formation of lumps in milk sauces and soups,**

1. Separate the starch granules (usually cornstarch or flour) by combining them with sugar, salt, fat or cold liquid before heating and
2. Stir the mixture constantly while heating and thickening.



## CHEESE COOKERY

Cheese cookery may consist of simply melting cheese, as in making a toasted cheese sandwich or combining cheese with other ingredients and cooking it, as in making cheese sauce. In either case, it is preferable to use low heat and short cooking times to prevent excessive fat separation, stringiness and matting. Like milk, protein is a major component of cheese and the principles of cooking are based on this nutrient. To prevent curdling in cheese sauces, the cheese should be added to a sauce just before it is taken from the heat and allowed to melt as you stir it into the hot sauce.