Color can give a clue as to what animal made the milk, the animal’s diet, and other ingredients that were added to the cheese.

**ORANGE**

If a cheese is a deep-orange color it has annatto extract added to it. Annatto is a seed from the South American achiote tree. Studies have concluded it doesn’t alter flavor by any measureable degree, meaning that, all other things being equal, orange cheddar and white cheddar have the same flavor. The main pigment in annatto generating the orange color is norbixin (pictured below).

![norbixin](https://www.cheesescience.org/images/norbixin.png)

**YELLOW**

Many cow and sheep cheeses range in color from very pale yellow to very deep yellow. This indicates the extent to which these animals were pasture fed. Grass contains high levels of β-carotene (yellow color), which is deposited in the milkfat during metabolism. Very pale yellow cheeses probably come from animals that don’t feed on grass, or contain less fat.

![β-carotene](https://www.cheesescience.org/images/β-carotene.png)

**WHITE**

If a cheese is very white (snow white, no hint of pale yellow) then good chances are that it is a goat cheese. Goats’ digestive processes break down β-carotene (yellow) into colorless vitamin A. This leaves very little β-carotene in the milk, but high levels of vitamin A make it into the cheese.

![β-carotene](https://www.cheesescience.org/images/β-carotene.png) → ![Vitamin A](https://www.cheesescience.org/images/vitamin-a.png)