

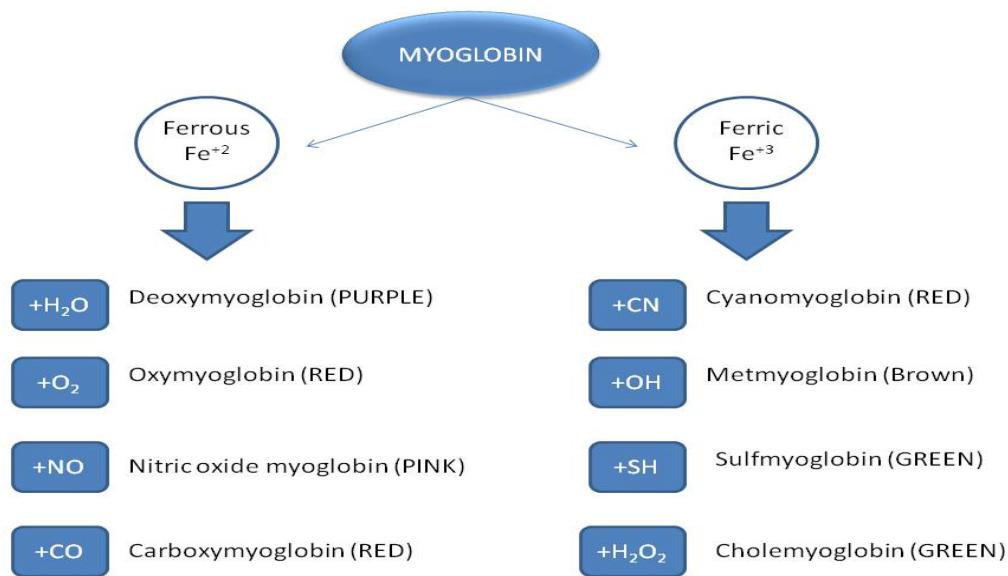


Worthwhile Operational Guidelines & Suggestions

BROILER PROCESSING TIMELY INFORMATION – MAY 2010

Meat Color - Part II

The red, pink, brown or even green color of meat is due to the muscle pigment myoglobin (Mb). The free binding site of Mb reacts with gases, acids or bases, salts, various chemicals and even light energy to produce color changes in raw, cooked and cured products:



Many pre-slaughter (i.e., inhalation of gas exhaust fumes; ingestion of molds and nitrates), slaughter (stunning; rate of blood loss; nitrates in processing water), and post-slaughter (microbial action on raw meat; chemicals and spices used in marinades; cooking; exposure to nitrous oxide during cooking; rate of freezing) factors can affect the oxidation/reduction state of the Mb and ultimately the color of final products.



Contact: S. F. Bilgili
 Phone: (334) 844-2612
 E-mail: bilgifs@auburn.edu
 Poultry Science Department
 Auburn University, Auburn, AL 36849-5416

www.ag.auburn.edu/dept/ph/

