**Chemical and Hormonal Castration**

Chemical Methods

Chemical castration includes injection of sclerosing or toxic agents (e.g. 88% lactic acid) into the testicular parenchyma to cause irreparable damage and loss of function. Chemical castration requires additional procedural time and technical skill, and almost twice the healing time compared with surgical castration.

Hormonal Methods

Hormonal castration (immunocastration) typically involves injection of immuncontraceptives to induce antibody production against gonadotropin releasing hormone (GnRH), resulting in decreased production of endogenous hormones. Immunocastration has been shown to increase live weight, hot carcass weight, average daily gain, and dressing percentage following castration when compared with surgical methods. Although testosterone production is reduced for approximately 6 months after immunocastration, persistent mounting behavior, consumer concerns and the need for repeat injections have made the technique less effective and desirable than traditional, physical methods.

