INTRODUCTION

Cystic ovaries, ovarian follicular cysts, ovarian cysts and cystic ovary degeneration are all terms used synonymously to describe an anovulatory condition whereby a follicular structure grows to and surpasses ovulatory size, but fails to ovulate. In this paper, the condition will be referred to as cysts. The condition has been described in a number of mammalian species, but discussion in this paper will be limited to cattle. Cysts are an economic problem for dairy producers since cows are infertile as long as the condition persists. Cows that develop cysts have extended calving intervals of approximately 50 days over unaffected cows. Cysts occur in 10 to 13% of the US dairy herd population annually. Several reviews have been written covering occurrence, causes, costs and treatment therapy (Kesler and Garverick, 1982; Ax et al., 1984; Nanda et al., 1989; Youngquist, 1994; Garverick, 1997). Where possible, reviews will be cited for the various sections rather than the original published papers.

Cysts have also been classified as either follicular or luteal. The term, follicular cyst has been used to describe an enlarged follicular structure that is thin walled and secretes little progesterone. Luteal cysts are thicker walled and usually secrete progesterone. Follicular cysts are more common than luteal cysts. It is estimated that 30% of cysts are luteal. Luteal cysts are likely follicular cysts in later stages of development; whereby the theca or granulosa cells spontaneously luteinize. However, many follicular cysts never spontaneously luteinize and remain follicular cysts throughout their lifespan. Another condition (cystic corpora lutea) is often confused with the anovulatory cyst condition. Cystic corpora lutea (CL) occur following ovulation and are characterized by a central, fluid filled cavity of varying size within an otherwise normal CL.