Research conducted by Houghten and Skeeles et al at the University of Arkansas has demonstrated several important points regarding the immunity produced by vaccination with ART VAX (a live temperature-sensitive *Bordetella avium* vaccine).

1. Vaccination with ART VAX vaccine prevents or reduces the clinical signs and incidence of secondary *E. coli* infection associated with *B. avium* (Turkey Coryza) field challenge.

2. High levels of maternal antibodies to *B. avium* may interfere with ART VAX vaccination response. To protect birds that did not respond completely to day of age vaccination, flocks should be revaccinated at 14 days of age.

3. ART VAX vaccine does not prevent low level tracheal colonization (infection) with field strains of *B. avium*. The level of colonization is reduced to a point where clinical signs are not manifested.

Schering-Plough research has shown that ART VAX vaccine does produce a titer response. The work by Dr. Houghten and Dr. Skeeles, however, indicates that local immunity due to secretory or tissue antibody appears to be the primary mechanism of protection.

**ART VAX Vaccination**

Current field experience indicates that the best vaccination program requires vaccination at day of age by coarse spray followed by revaccination in the field at 2 weeks of age. A second field vaccination at 5 weeks of age may be necessary for pouls moved into growout housing on old litter.