

*When two particular hormones are secreted at the same time, miscarriage occurs.*



*A proud calf with his mother. Hawai'i's livestock producers lose up to 40% of their calves annually to miscarriage.*

## Ruminating on Terms

**A** livestock operator's future depends on the cows in his herd giving birth to calves every year. In the United States, that prospect is by no means guaranteed because 30% of cows miscarry their calves early in pregnancy and another 10% later in the term (the worldwide figures are worse). The percentage of such miscarriages is higher in tropical settings—in Hawai'i, livestock operators may lose 40% of their calves in early pregnancy. This kind of economic loss is devastating and has caused the collapse of some livestock operations in Hawai'i. A years-long effort by CTAHR researchers to learn why miscarriage is so common is beginning to pay off. The culprits? Hormones. When two particular hormones (PGF2 $\alpha$  and estradiol-17 $\beta$ ) are secreted at the same time, miscarriage occurs. Work is now underway to determine ways to manage the timing of the hormones so that pregnancies can be carried to term. Livestock operators in Hawai'i will save millions of dollars from the outcomes of this CTAHR research.

### **Commodity Fact**

The 1997 farmgate value for island beef was \$14.3 million.

