

### **Seasonal depression of fertility in hot climates as influenced by production level and temperature humidity stress**

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NR rates of 275 719 inseminations in 124 high producing large herds in 4 years revealed a severe depression of fertility in the hot season, whereas 206 829 inseminations in moderately producing small herds did not show such a depression. The combined influences of 2 stresses, yield and climate, cause the depression.

A study on high yielding herds, during 3 years in 2 types of climate was carried out. In 34 herds with 12 625 cows in coastal areas with less high temperature but higher humidity, fertility depression was stronger in each of the 3 years, than in 35 herds with 11 540 cows in inland areas with higher temperature but lower humidity.

Seasonalizing of inseminations and providing of an appropriate microclimate are the answers to the problem of climatic stress.

### **Milk production in India of imported and local born *Braunvieh* cows**

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Milk yields in 1st and 2nd lactation, first calving interval (FCI), age at first (AFC) and at second calving (ASC) of two imported *Braunvieh* groups (IMP 1 and IMP 2) and their offsprings born in India (Indian born) have been compared. Indian born heifers calved at 1 013 days of age (Switzerland 1978, 1979 : 1 019 days). 305-days milk yields in 1st resp. 2nd lactation were about 2 355 kg and 2 612 kg (IMP 1), 2 125 kg and 2 558 kg (IMP 2) and 1 794 and 2 387 kg (Indian born), and were inferior to performances realized in Switzerland (1978, 1979 : 1st lact. : 3 353 kg; 2nd lact. : 4 169 kg). The low first standard lactation of Indian born cows is a consequence of an extensive raising. FCI for IMP 1 (455 days) and IMP 2 (475 days) was longer than in Switzerland (1978, 1979 : 410 days), which indicates that fertility is lower during acclimatization.

### **Milk production of imported *Braunvieh*, *Holstein* and *Brown Swiss* cows in the tropical lowlands of Bolivia**

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The 100-, 200- and 305-days milk yield (305 DMY) of 172 *Brown Swiss* (BS, imported from the U.S.A.), 197 *Holstein* (HO, from Argentina) and 72 *Braunvieh* (BV, from Switzerland) imported as pregnant heifers to Bolivia (near Sta Cruz) are analysed. 1st and 2nd 305 DMY were about 3 376 kg and 3 413 kg (HO), 2 903 kg and 2 804 kg (BS) and 2 707 kg and 2 813 kg (BV). In the 1st lactation BS perform 58 p. 100 and BV 77 p. 100 of the 305 DMY of contemporaries in the country of origin. 305 DMY of HO are superior to those of BV and BS. There is no increase in 305 DMY from the 1st to the 2nd lactation for all three breeds.