

Effects of season and milk volume on somatic cell count of Florida dairy farms

Fernanda Ferreira and Albert De Vries

fernanda.ferreira@ufl.edu

devries@ufl.edu

Department of Animal Sciences
University of Florida



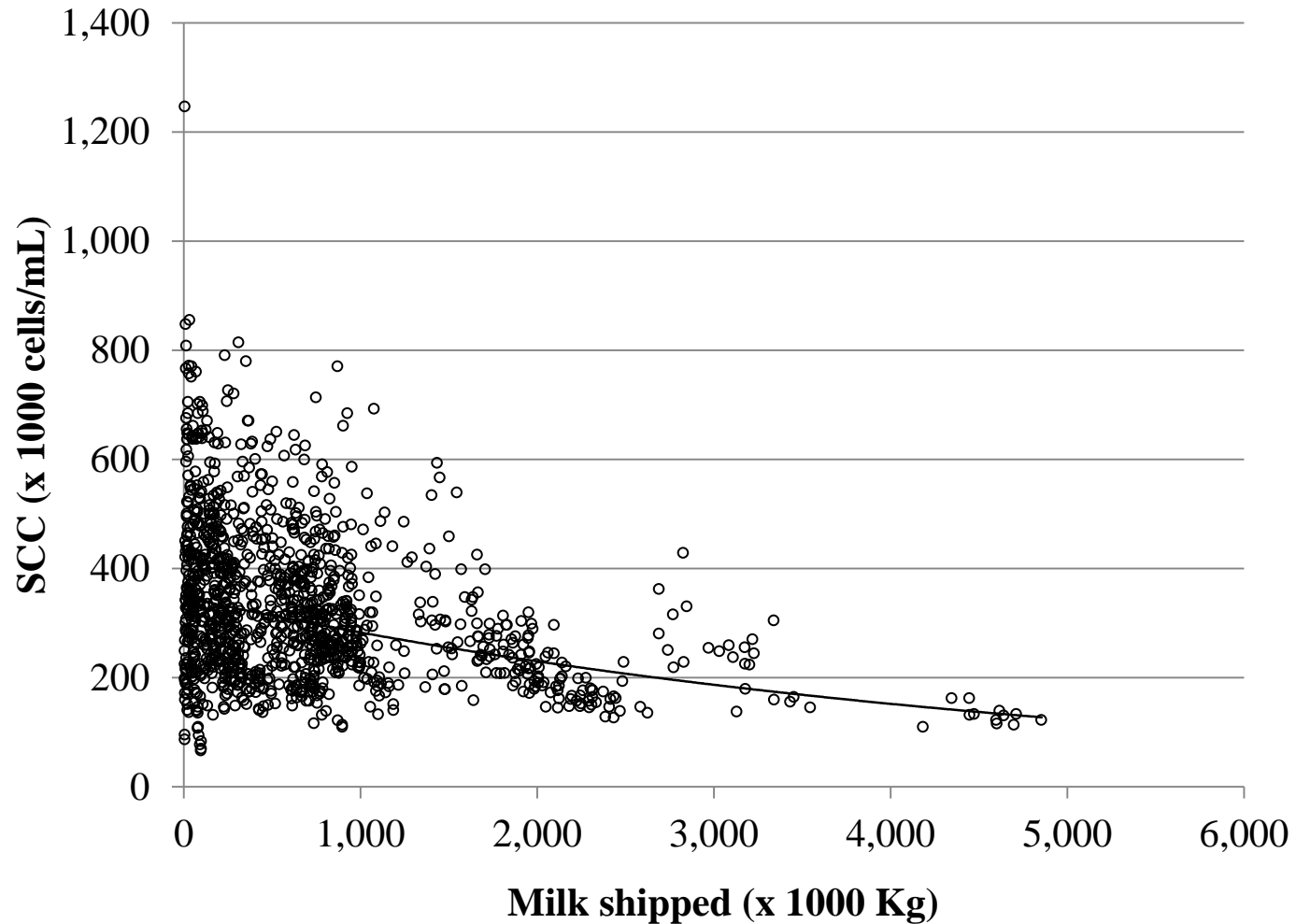
Materials and methods

- **Data:**
 - 2 major milk buyers (cooperatives)
 - Monthly SCC and milk volume shipped
 - 2012: monthly records of 94% (n=1,388, 122 Florida farms)
 - 2013: monthly records of 82% (n=1,245, 106 Florida farms)
- **Analysis:**
 - Arithmetic average SCC
 - Weighted SCC by milk volume
 - Per calendar month (all farms): WSCCm
 - Per farm (all 12 months): WSCCf
 - Seasonality: warm : cool ratio (WCR)
 - “Warm”: Aug, Sep, Oct. “Cool”: Feb, Mar, Apr.
 - Volume of milk shipped and SCC

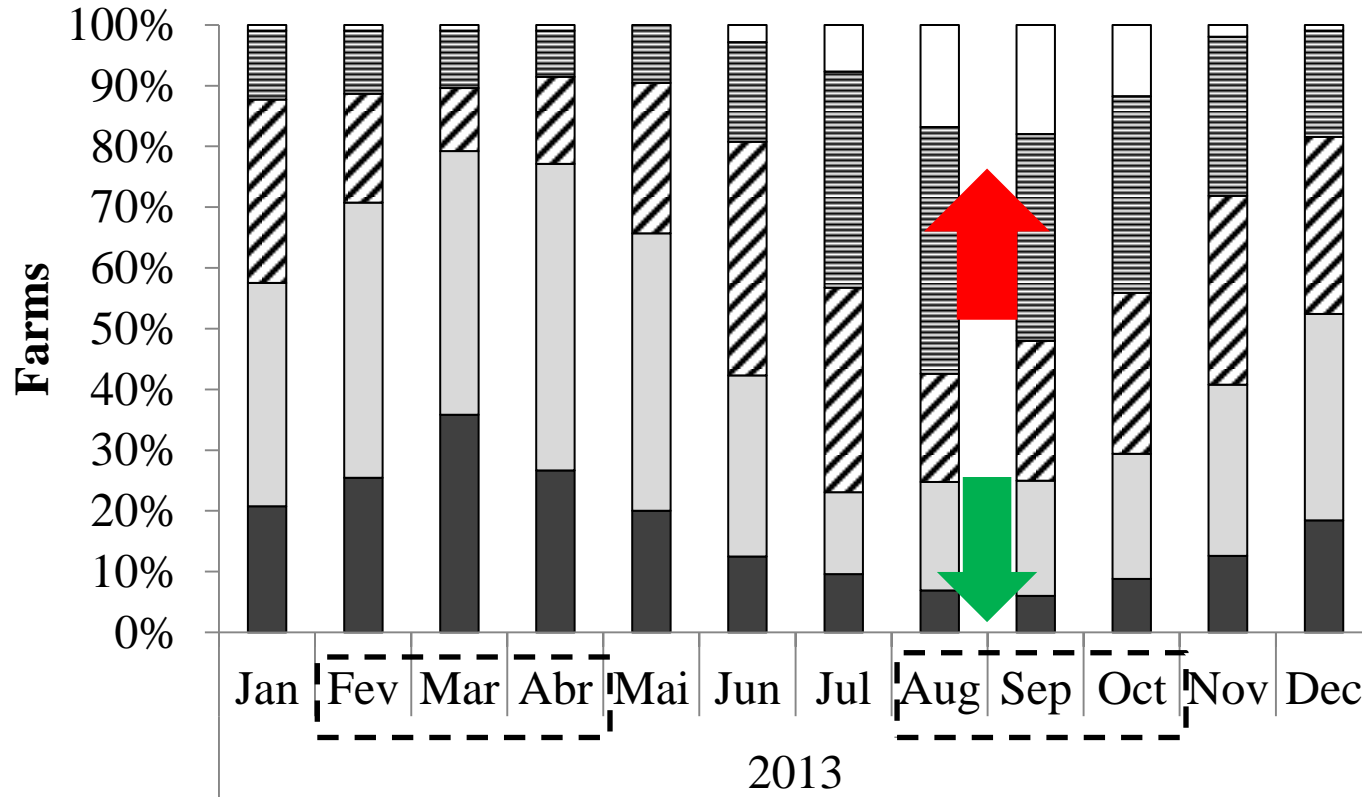
Results

Variable	N	Mean	Median	SD	Min	Max
2013						
Milk shipped per month (Kg)	1245	701 x 10 ³	505 x 10 ³	765 x 10 ³	6 x 10 ³	4,854 x 10 ³
SCC	1245	328 x 10 ³	302 x 10 ³	140 x 10 ³	66 x 10 ³	1,246 x 10 ³
WSCCf (cells/mL)	101	317 x 10 ³	312 x 10 ³	105 x 10 ³	124 x 10 ³	643 x 10 ³
WSCCm (cells/mL)	12	279 x 10 ³	269 x 10 ³	49 x 10 ³	216 x 10 ³	356 x 10 ³
WSCC (cells/mL)	1	275 x 10 ³				

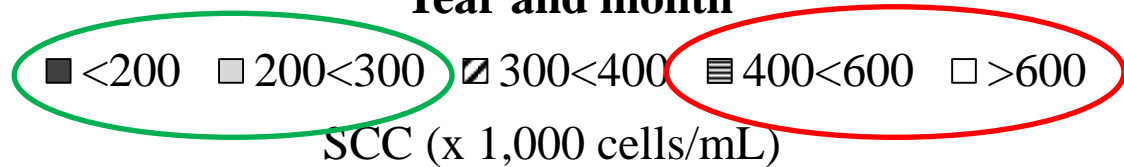
Distribution of monthly SCC by milk shipped in 2013 (n=1,245)



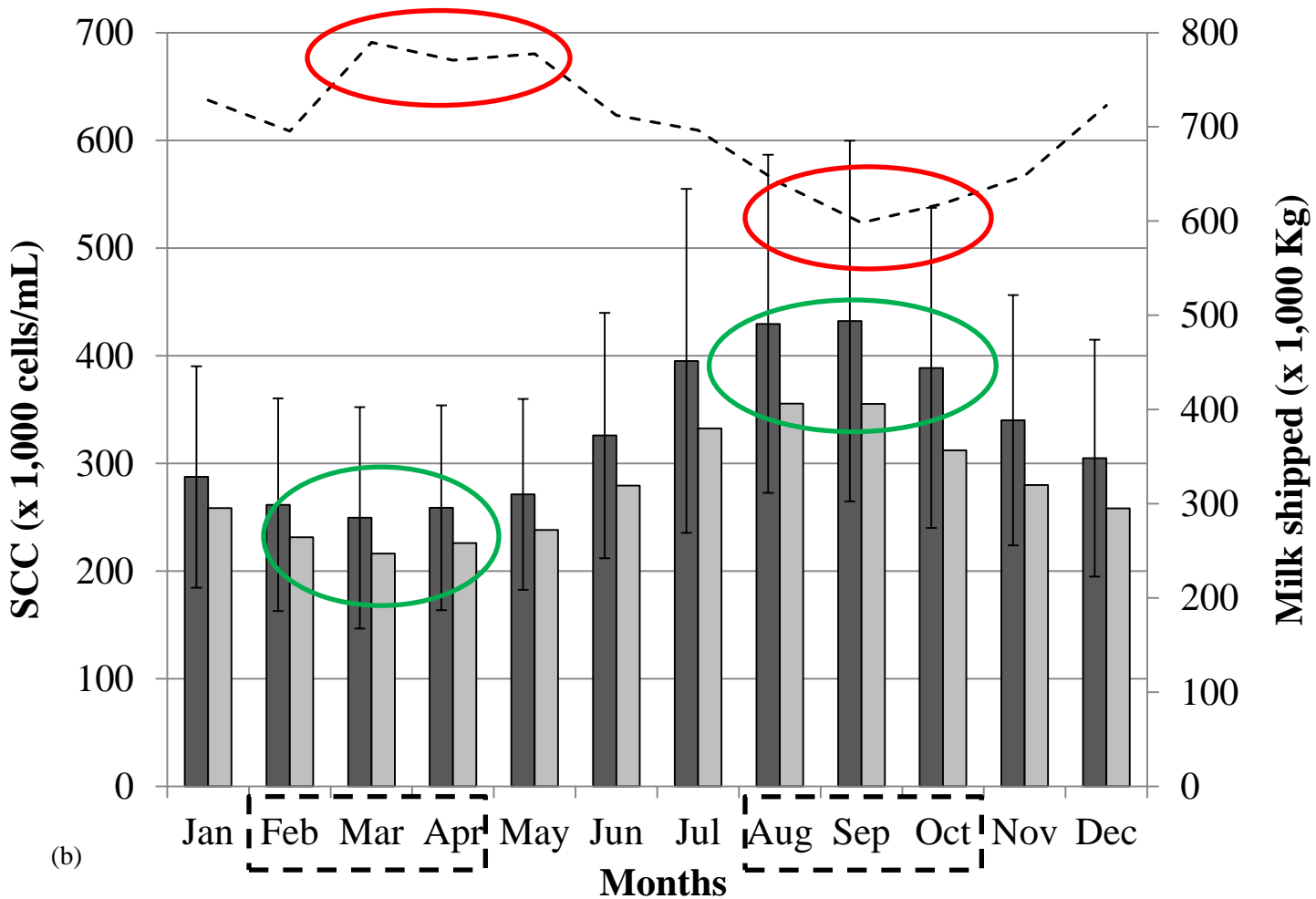
Increased % of farms shipping milk with SCC above 300,000 cells/mL during warm season



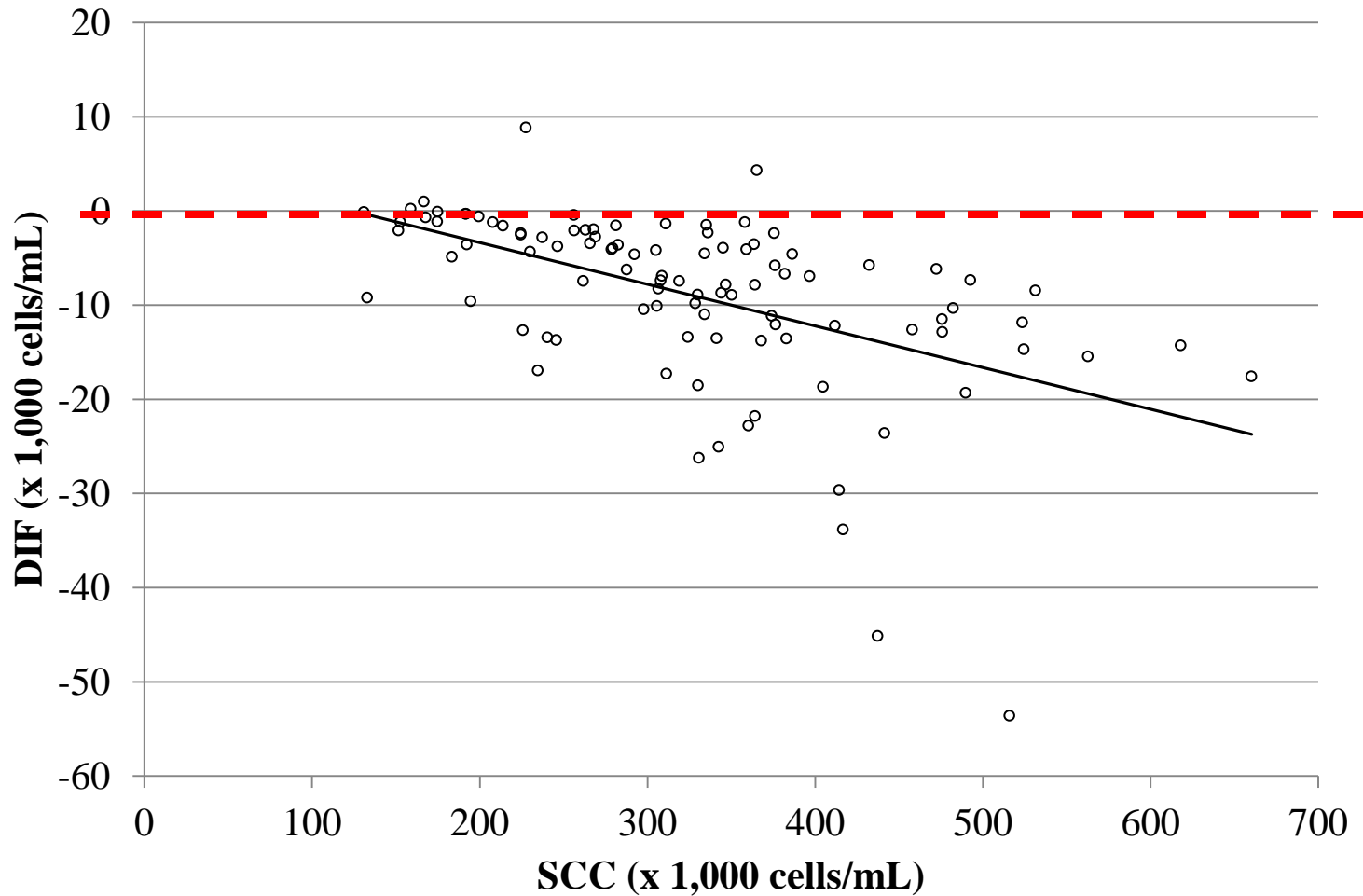
Year and month



Increased SCC in the summer, but greater difference between arithmetic average SCC and weighted SCC



Farms with high SCC tend to have bigger DIF (WSCC – SCC)



The greater the annual volume of milk shipped by a farm, the smaller the DIFf (WSCCf – SCCf)

