

# The effect of organic selenium (Sel-Plex®) on dairy cow health, fertility, milk production and milk quality

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**Objective:** Evaluate the effect of organic selenium (Sel-Plex, Alltech Inc.) in diets on dairy cow health and fertility, as well as milk production and quality.

**Experimental Design:**  
**Size:** 100 head  
**Duration:** Dry period + 120 days of lactation  
**Treatments:** CON – 0.3 ppm sodium selenite  
SP – 0.3 ppm Sel-Plex

## Important observations

- Se concentration in milk was significantly higher in the Sel-Plex treatment than in the control at 0.058 mg/l and 0.029 mg/l respectively ( $P < 0.05$ ) (Figure 1).
- Addition of Sel-Plex in diets was associated with increased milk yield compared to the control at 37.9 kg/day and 36.5 kg/day respectively (Figure 2).
- SCC (somatic cell count) was lower in those fed Sel-Plex compared to the control at 272,000/ml and 320,000/ml respectively.
- With Sel-Plex, increases occurred in the number of cows with confirmed pregnancy (83% SP vs. 67% CON), whereas the number of retained placenta cases was lower (6 SP vs. 10 CON), days to confirmed pregnancy was lower (130 days SP vs. 139 days CON), and services per conception was lower (1.63 SP vs. 1.81 CON).

Figure 1: Effect of selenium source (Sel-Plex vs selenite) on milk Se concentration

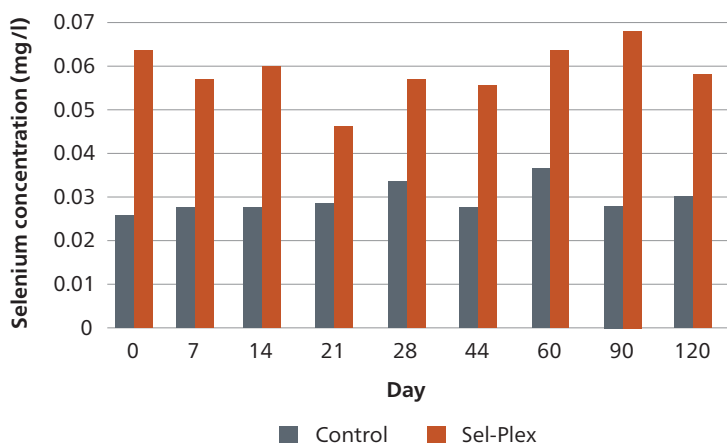
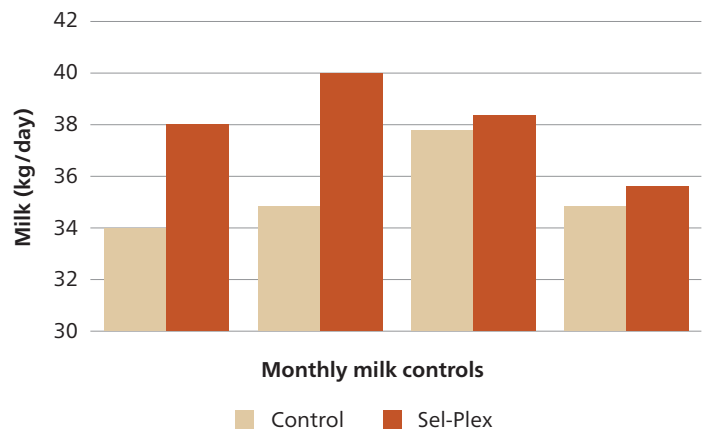


Figure 2: Effect of selenium source (Sel-Plex vs selenite) on milk yield



## Conclusion

Sel-Plex supplementation was associated with increased Se concentration in milk ( $P < 0.05$ ) and improved cow health and fertility.