Impact of market prices on economic values of dairy cattle and sheep traits

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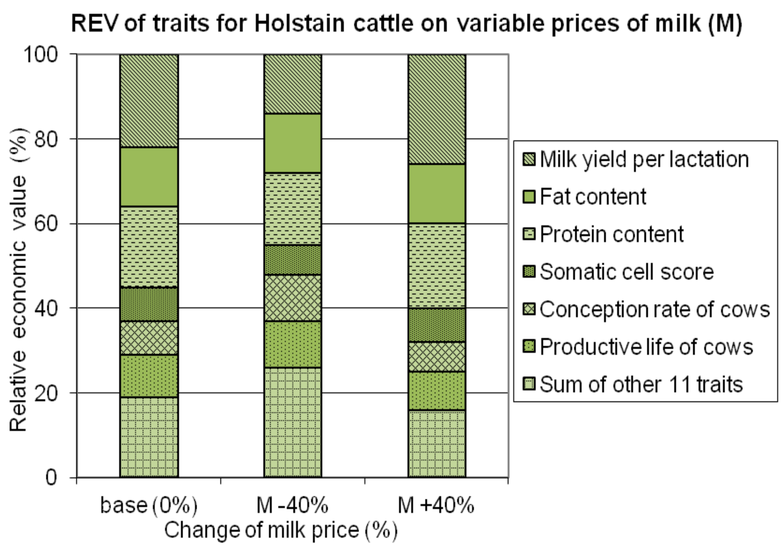
Objective

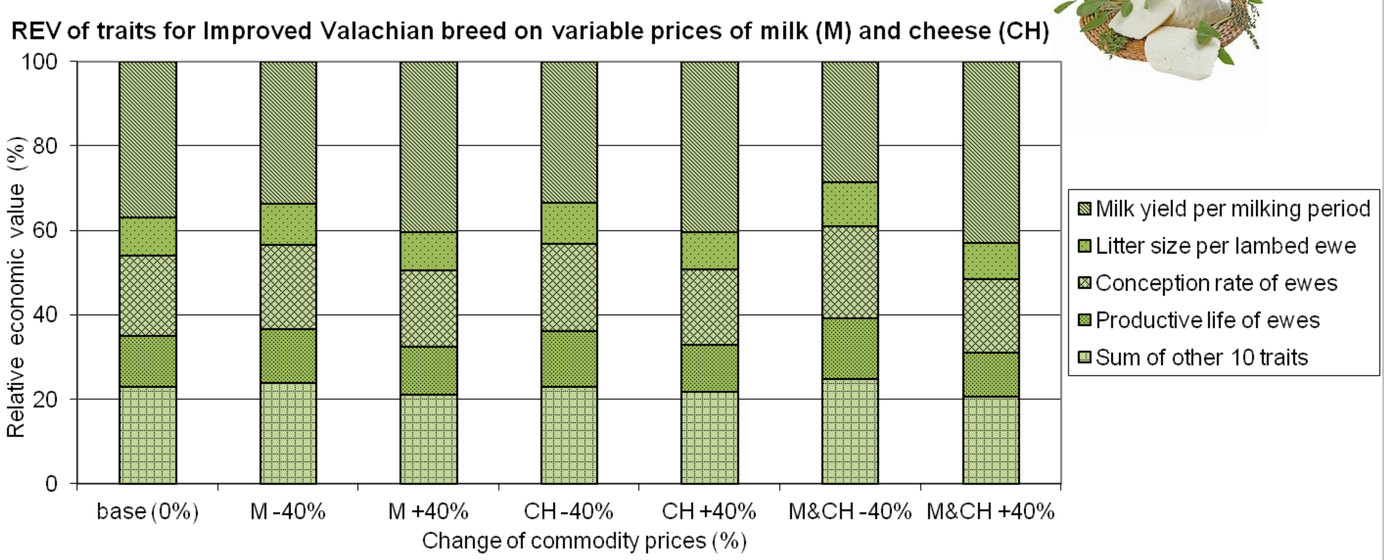
To evaluate the impact of **market prices** of dairy products on the **relative economic values** of traits in **Holstein cattle** and **Improved Valachian sheep** in Slovakia

Material and methods

- **Average production and economic parameters** of the breeds in Slovakia for period 2004-2010
- **Two alternatives** (**±40%)** for average **price** of dairy milk (0.314 €.kg^{-1}) and sheep milk and cheese (0.704 €.kg^{-1}; 5.970 €.kg^{-1}) was used according to the volatility of prices in the evaluated period
- **Economic efficiency (profit)** of the production system = total revenues - total costs per cow (ewe) and year
- **Marginal economic value** of each trait defined as a partial derivation of the profit function (bio-economic model – program package ECOWEIGHT, ver. 5.1.1 Part 1 for Cattle and Part 2 for Sheep (Wolf et al., 2011)
- **Relative economic value** (REV) of the trait expressed the absolute value of economic importance of the trait as percentage on the sum of economic importance of all evaluated traits

Results





Conclusions

- REV of milk yield was the most sensitive to milk price, both in cattle and sheep
- REVs of growth and carcass traits (in cattle) or growth and wool traits (in sheep) had a low value at all scenarios (from 1 to 15% in cattle and from 0 to 9% in sheep)
- According to the price trends in 2012: the average value for dairy milk and the maximal prices for sheep milk and cheese can be recommended when calculating EV of traits for the breeding objective of Holstein cattle and Improved Valachian breed in Slovakia

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