

Topic

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Cross breeding with dairy breeds to improve performance, health fertility and longevity

Technical efficiency

Economic resilience



Background

In the past few decades, the focus in dairy cattle breeding has been mainly on the production of high volumes of milk. Pure-breeding is used in almost all breeds. Purebred and pedigree breeding has led to a deterioration in animal health parameters and reproduction traits. However, heterosis through crossbreeding has a positive effect on the fitness of the animals.

How does the strategy work

Example: Procross breeding is a three breed continuous rotation crossbreeding procedure

Holstein –friesian
COW



Montbeliarde sire



1st generation (F1)
HF x Montbeliarde



Swedish Red and White sire



2nd generation (F2)
HF x Montbeliarde x
Swedish RW



Holstein-friesian sire



The sire rotation starts again!

Holstein-friesian heifer



Swedish RW sire



F1 Heifer
HF x Swedish RW



Montbeliarde sire



F2 Heifer
HF x Swedish RW x
Montbeliarde



Holstein-friesian sire



Positive features

- Continuous heterosis in crossbred herds has a positive effect on milk fat and milk protein percentage compared to purebred HF herds
- On average 30-40 days shorter service period and about 50-60 days shorter time between calvings
- 15-20% lower insemination index
- 55-65% fewer foot and feet diseases
- 50-60% less mastitis

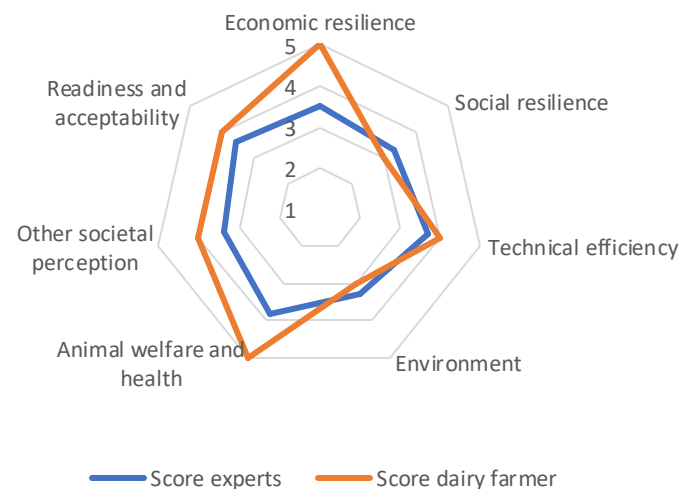
Negative aspects

- Producing cross-breeding partners by pure-breeding
- Inappropriate crossing partners reduces the heterogeneity of the animals and the associated benefits
- Requires appropriate expertise

Be careful, especially on these points

- Accurate sire selection
- Compliance with technological discipline
- Use of appropriate sires
- Preparation of a mating plan

Assessment of method



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