A comparative study of carcass yields and quality between fattening Charolais crossbred and Holstein crossbred steers

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Current situation

***Bos taurus* > 50%**

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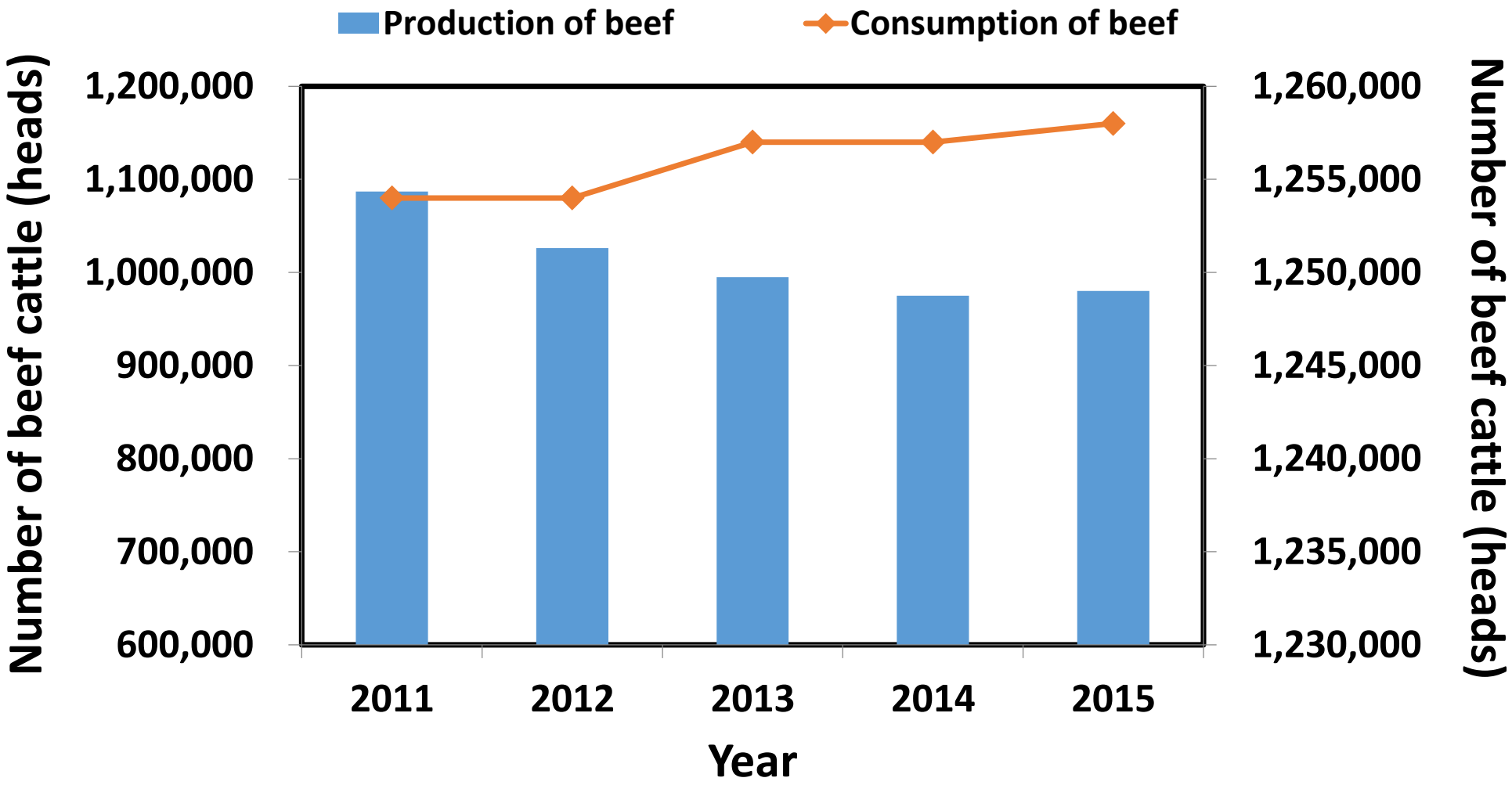
Beef production and consumption in Thailand



Source: OAE (2015)

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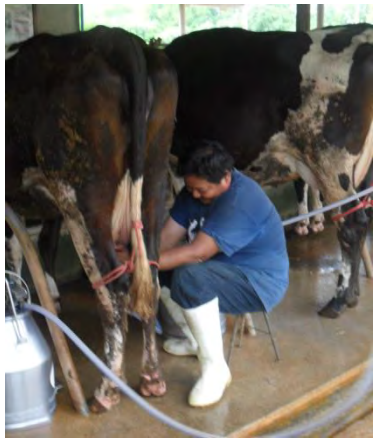
Current situation

Dairy farm



Female

Milk production

Male

Meat production

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Objective

To compare carcass yields and quality between fattening Charolais crossbred steers and Holstein crossbred steers for high meat quality production in Thailand

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Dataset

Charolais crossbred
(1,350 animals)

Holstein crossbred
(704 animals)

Carcass weight

- Hot carcass weight
- Cold carcass weight
- Hot carcass dressing percentage
- Cold carcass dressing percentage

Marbling score

- Marbling score (level 1 to 5)

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Statistical model

$$y = \mu + YS + b(LW) + Age + BG + e$$

Fixed effects

- Slaughtering year-season (YS)
- Live weight (LW)
- Slaughtering age (Age)
- Breed group (BG)

Random effect

- Residual

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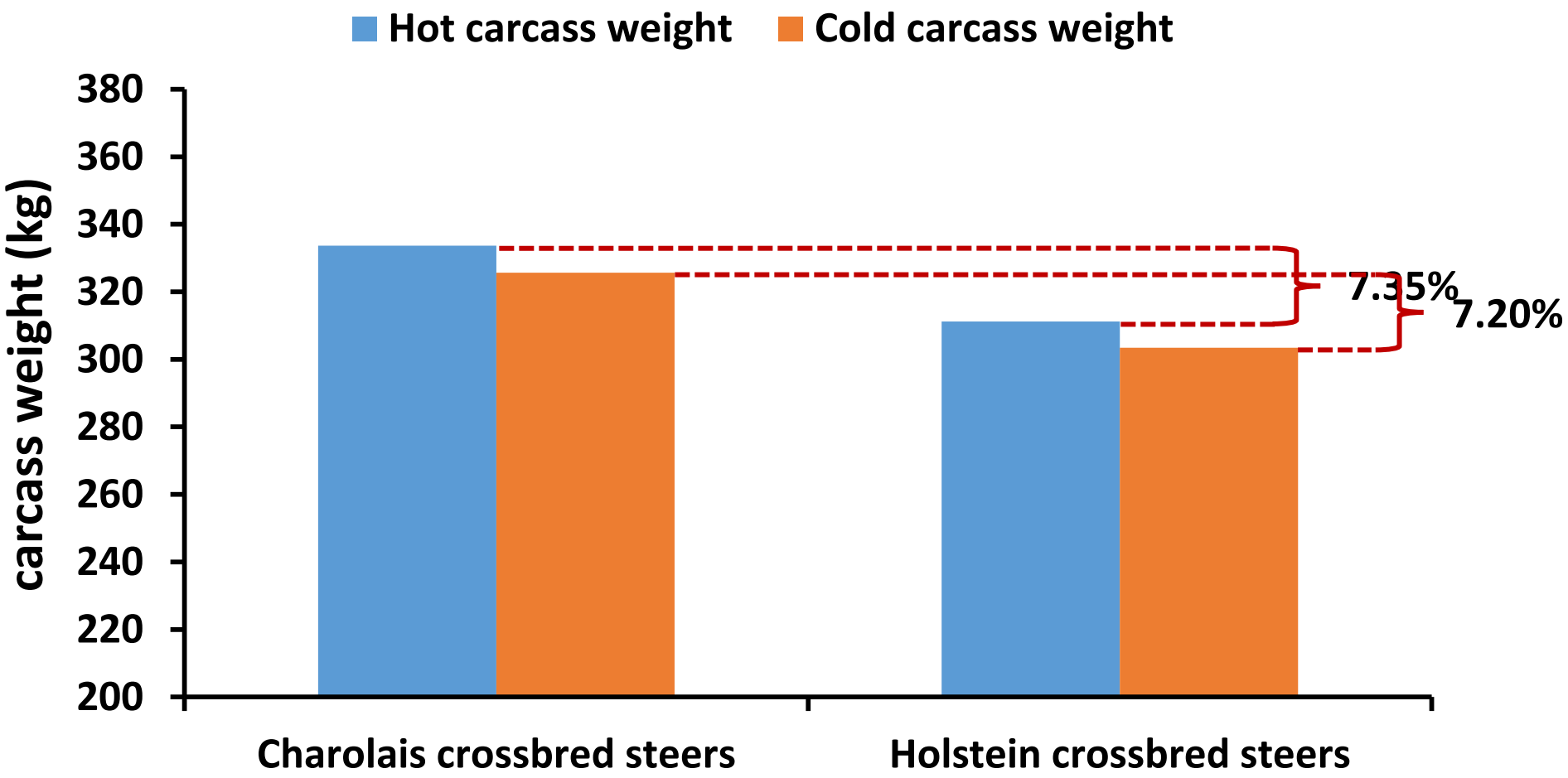
Effect of breed group
(Carcass weight)



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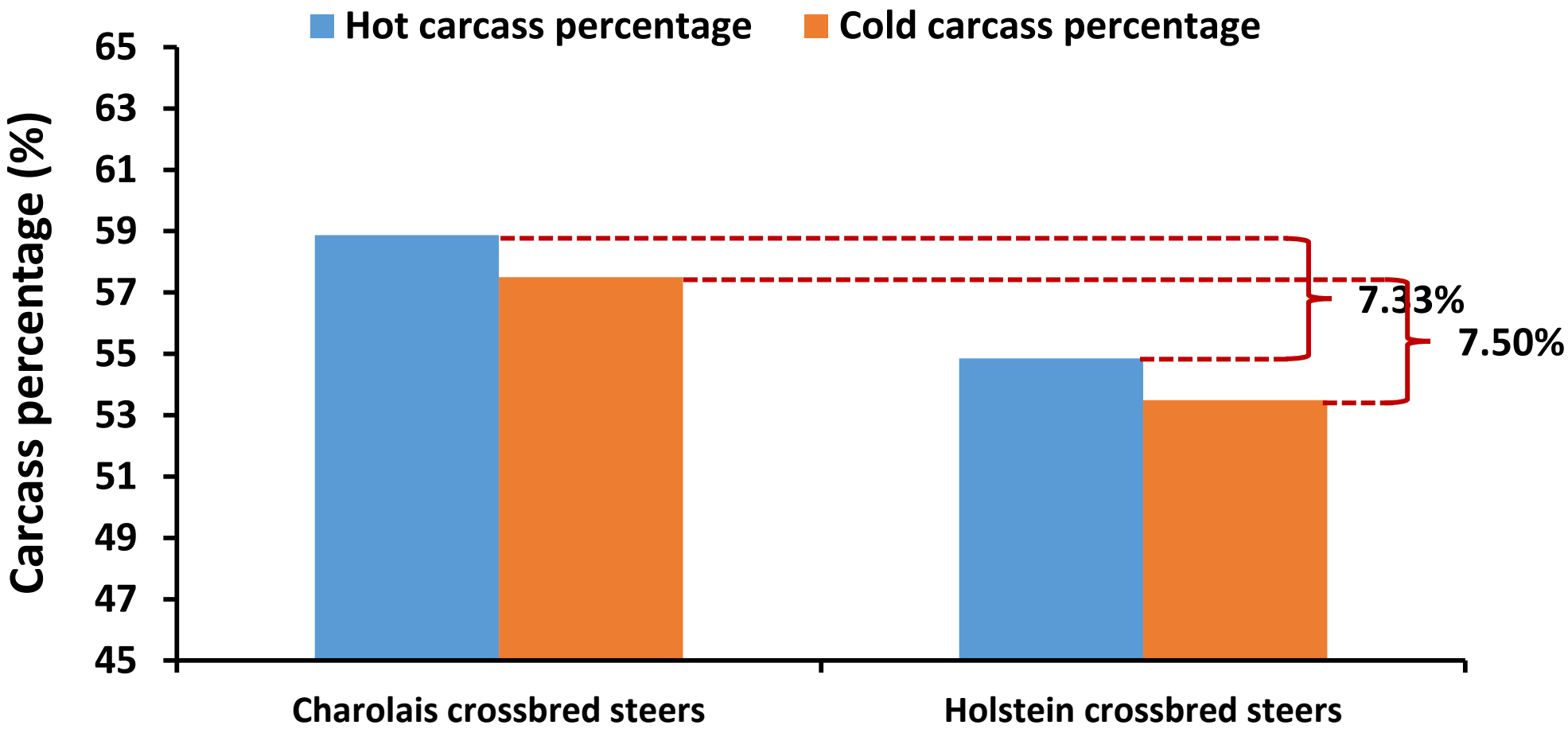
Effect of breed group
(Carcass percentage)



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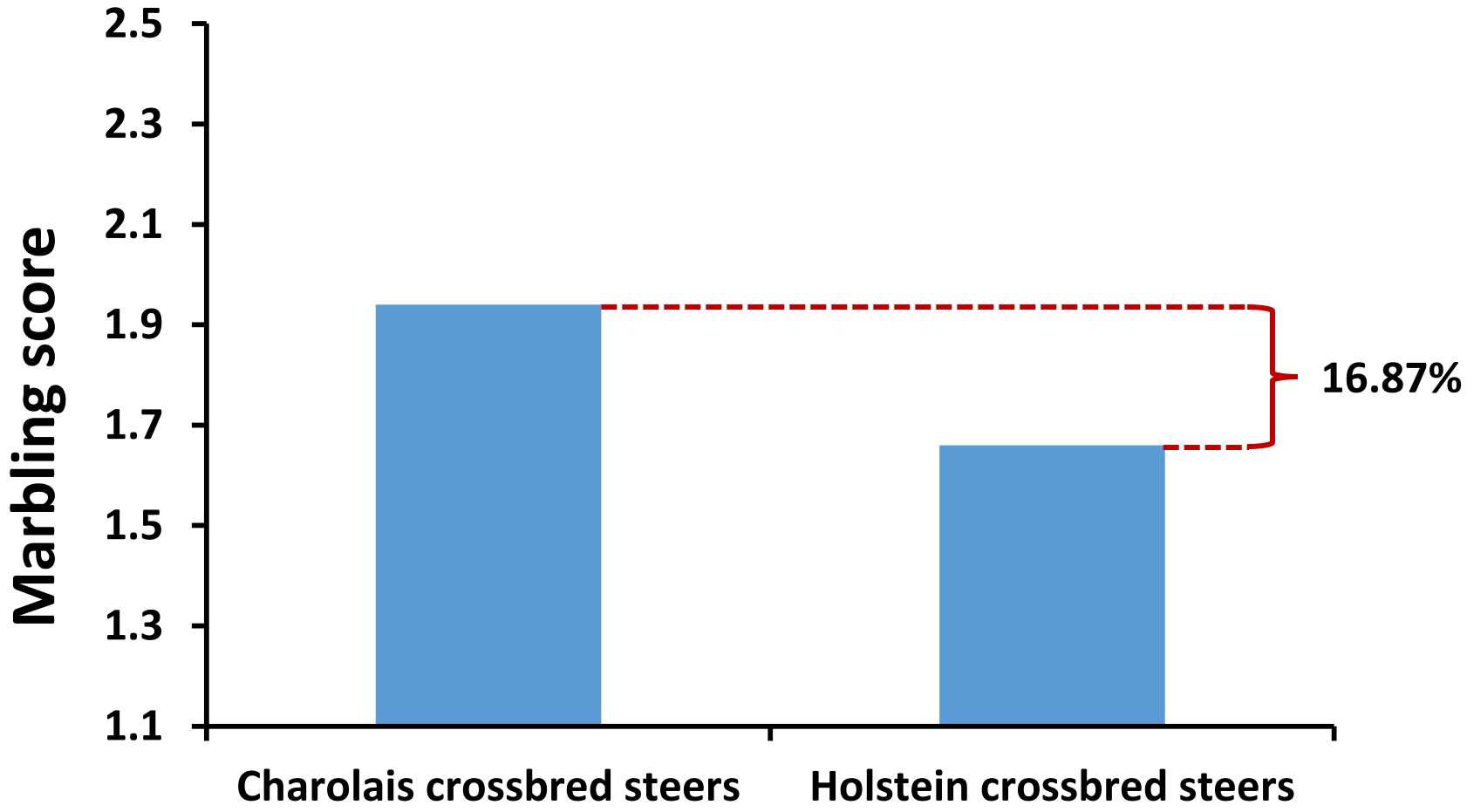
Effect of breed group
(Marbling score)



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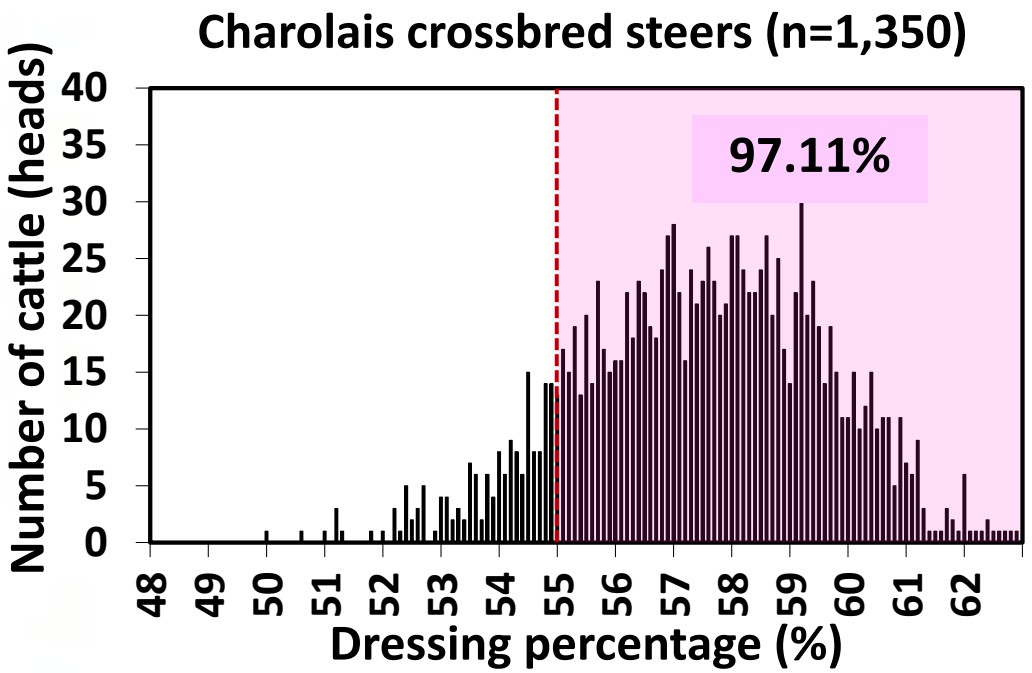
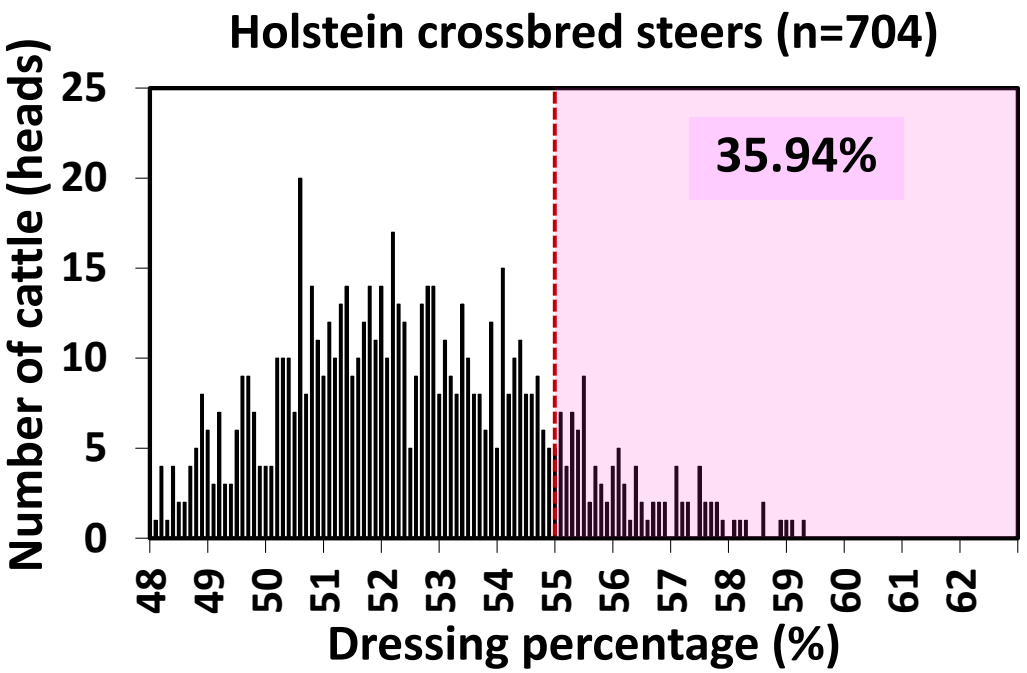
Distribution of dressing percentage





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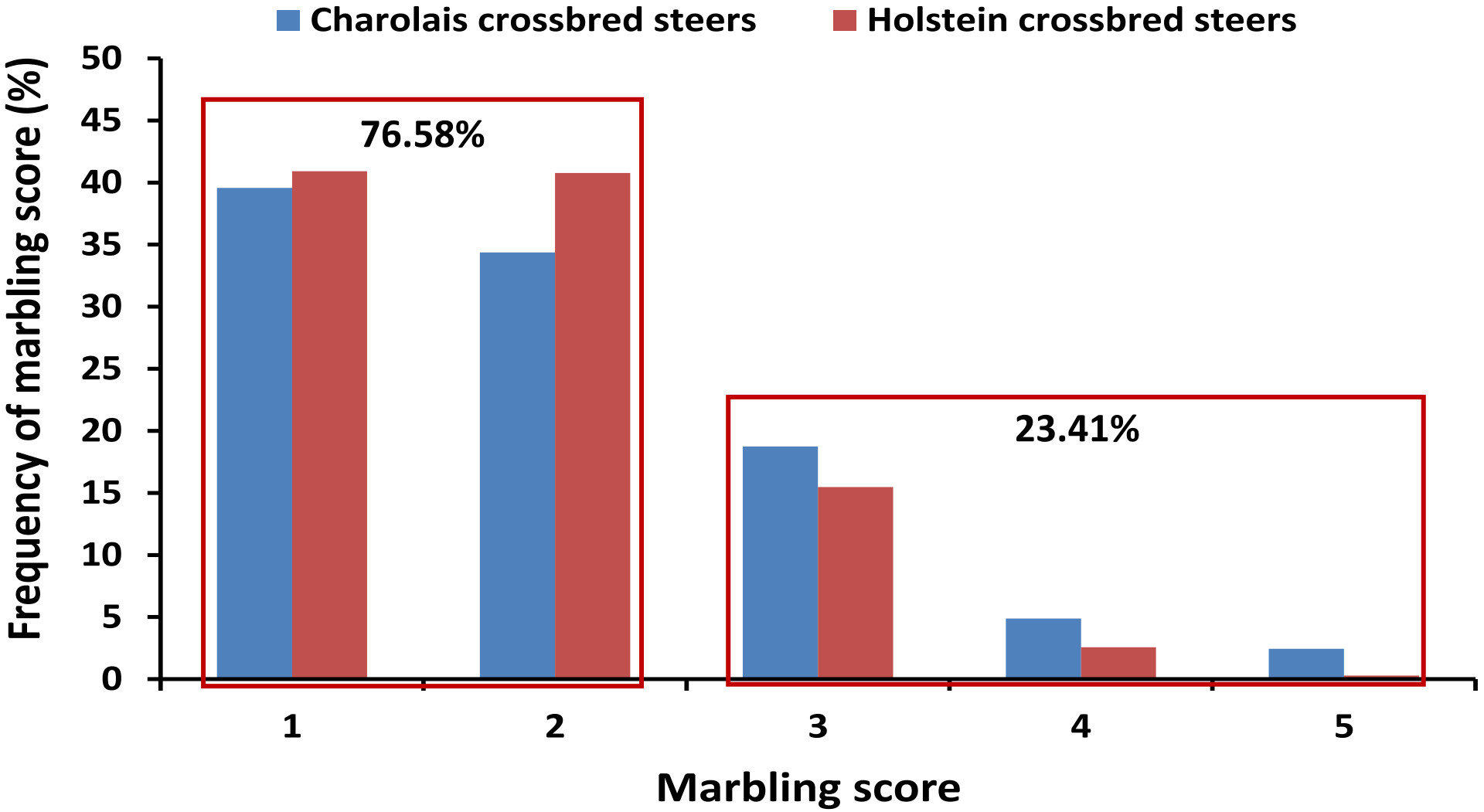
Marbling score



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Conclusion and implication

Conclusion

Charolais crossbred steers had higher carcass quality and marbling score than Holstein crossbred steers when fattened under Thai management

Implication

High meat quality of Holstein crossbred steers could be done by intensive fattening process

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Acknowledgement

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Thank you for your attention