

### *Supplementary Material S1*

#### **Effect of environmental enrichment and herbal compounds-supplemented diet on pig carcass, meat quality traits, and consumers' acceptability and preference.**

Nicolau Casal, Maria Font-i-Furnols, Marina Gispert, Xavier Manteca and Emma Fàbrega

#### **Statistical model for carcass quality variables:**

$$Y_{ijk} = \mu + H_i + E_j + (H \times E)_{ij} + W_k + e_{ijk}$$

$Y_{ijk}$ : observation  $ijk$

$\mu$ : mean of the observation  $ijk$

$H_i$ : use or not use of herbal compound

$E_j$ : user or not use of environmental enrichment

$(H \times E)_{ij}$ : interaction between  $H$  and  $E$

$W_k$ : carcass weight as covariate

$e_{ijk}$ : error of the observation  $ijk$

For live weight, carcass weight and carcass yield variables,  $W$  was not included in the model as covariate.

**Statistical model for meat quality variables:**

$$Y_{ijkl} = \mu + H_i + E_j + (H \times E)_{ij} + D_k + e_{ijkl}$$

$Y_{ijkl}$ : observation ijkl

$\mu$ : mean of the observation ijkl

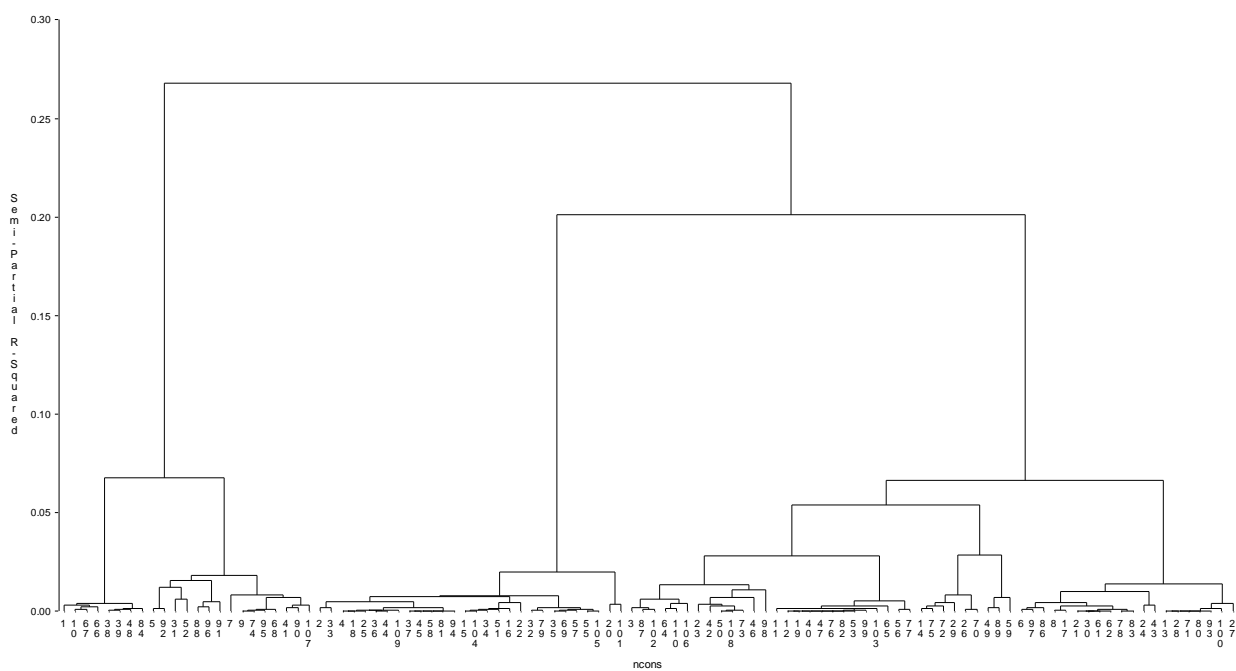
$H_i$ : use or not use of herbal compound

$E_j$ : user or not use of environmental enrichment

$(H \times E)_{ij}$ : interaction between H and E

$e_{ijkl}$ : error of the observation ijkl

**Dendrogram of the cluster analysis. From it, 3 clusters were selected:**



**Statistical model for the consumer study analysis:**

$$Y_{ijkl} = \mu + H_i + E_j + (H \times E)_{ij} + C_k + S_l + e_{ijkl}$$

$Y_{ijkl}$

$Y_{ijkl}$  : observation ijkl

$\mu$  : mean of the observation ijkl

$H_i$  : use or not use of herbal compound

$E_j$  : user or not use of environmental enrichment

$(H \times E)_{ij}$  : interaction between H and E

$C_k$  : Consumer as random

$S_l$  : Session as blocking effect

$e_{ijkl}$  : error of the observation ijkl