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Sarah S. Guardia, F. Recoquillay, Herve H. Juin, Michel Lessire, Maryse Leconte, Jean-François Guillot, Irène Gabriel

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HAL Authorization

Effect of plant extracts and stocking density on growth performances of broiler chickens according to their growth potential

Guardia S.¹, Recoquillay F.², Juin H.³, Lessire M.¹, Leconte M.¹, Guillot J.-F.⁴, Gabriel I.¹

¹INRA - UR 83, URA, 37380 Nouzilly, FRANCE, ²PHYTOSYNTHESE - Z.I. de Mozac Volvic, 63203 Riom, FRANCE, ³INRA - UEASM, Le Magneraud, 17700 Surgeres, FRANCE, ⁴I.U.T. de Tours- 29, rue du Pont-Volant, 37082 Tours, FRANCE

Aims

Investigating the effect of plant extracts (EXV) on the broiler chicken according to :

- Growth potential (d10 weight)
- Stocking density

Materials & Methods

Animals : White PM3 Ross broilers

Housing conditions : 3 m² floor pen
6 repeat per treatment

Stocking density : 12 birds/m² (normal density)
17 birds/m² (high density)

Dietary treatments :

Control: Basal diet (Wheat / Soybean meal / Maize)

Exp1: EXVa d22-39; **Exp2:** EXVb d1-10 and EXVa d10-39

EXVb : anti-oxydative properties

EXVa : anti-bacterial properties



Analysis of variance

	DWG	Weight
	d24-39	d39
Density (D)	NS	NS
Dietary treatment (T)	**	*
d10 weight (W)	***	***
D x T	NS	NS
D x W	NS	NS
T x W	*	*
D x T x W	NS	NS

➔ Significant effect of

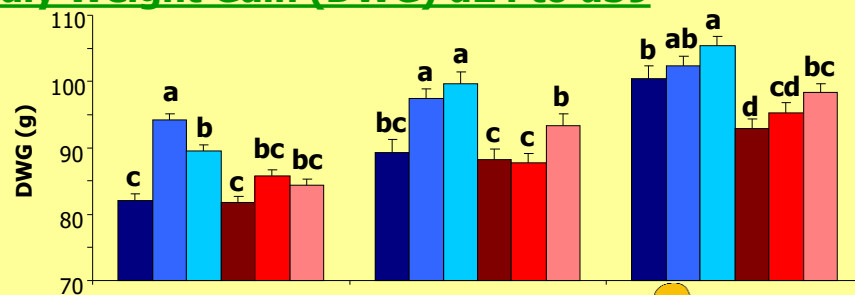
d10 weight

➔ 3 groups created according to d10 weight :

Light, Medium and Heavy



Daily Weight Gain (DWG) d24 to d39



Treatment (T) ***

Density (D) ***

T x D *



*

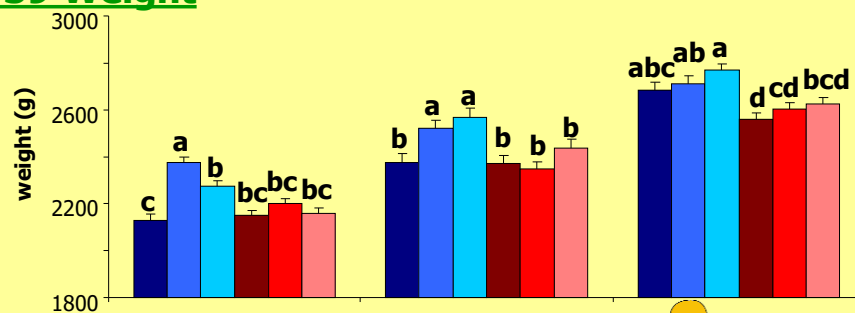


**

NS



D39 Weight



Treatment (T) ***

Density (D) **

T x D *



*



*

NS



For each group, at normal density n=66 and at high density n=94

Normal Density Control

Exp1

Exp2

High Density Control

Exp1

Exp2

phytosynthèse

la phytothérapie animale tirée



Conclusion

EXV efficiency varies according to growth potential and stocking density

Low potential birds
Normal density
EXVa alone more efficient

High potential birds
Normal and High density
EXVb and EXVa succession more efficient