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### ► To cite this version:

Sarah S. Guardia, F. Recoquillay, Herve H. Juin, Michel Lessire, Maryse Leconte, et al.. Effect of plant extract blends in two rearing densities on growth performances of broiler chickens according to their growth potential. 17th European Symposium on Poultry Nutrition, Aug 2009, Edinburgh, United Kingdom. WPSA UK Branch, 2009. hal-02753634

**HAL Id: hal-02753634**

**<https://hal.inrae.fr/hal-02753634>**

Submitted on 5 Oct 2021

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

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## 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 m<sup>2</sup> floor pen  
6 repeat per treatment

**Stocking density :** 12 birds/m<sup>2</sup> (normal density)  
17 birds/m<sup>2</sup> (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

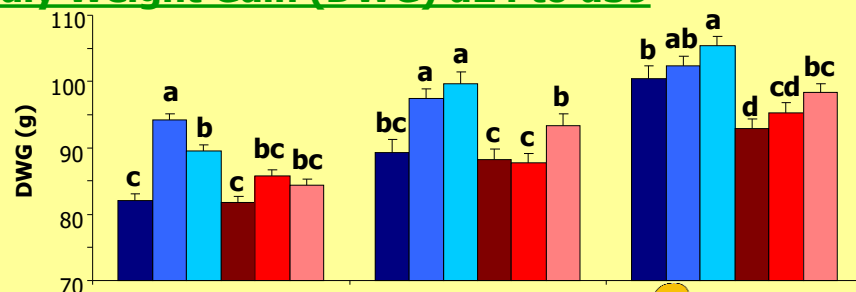
d10 weight

➔ 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** \*



\*\*\*

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\*



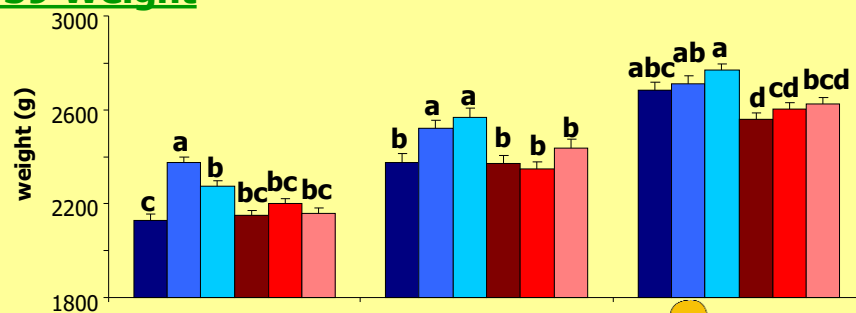
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NS



## D39 Weight



**Treatment (T)** \*\*\*

**Density (D)** \*\*

**T x D** \*



\*\*\*

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\*



\*

\*\*\*

NS



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

**Normal** Control

**Density** Exp1

Exp2

**High** Control

**Density** 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**