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DIFFERENT METHODS FOR DETERMINATION OF METABOLIZABLE COEFFICIENTS OF MORINGA LEAF FLOUR AND BOCAIUVA PULP MEAL IN SLOW - GROWING BROILERS

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Introduction

- Is fundamental to know the nutritional value of food for the formulation of nutritionally viable diets.
- Total collection (Ferric Oxide);
- Partial collection of excreta (Titanium dioxide).



Source: Personal archive

Objective

- To compare the metabolizable coefficients of dry matter, crude protein and ethereal extract of the moringa leaf flour and pulp bocaiuva determined by total collection and partial collection of excreta.

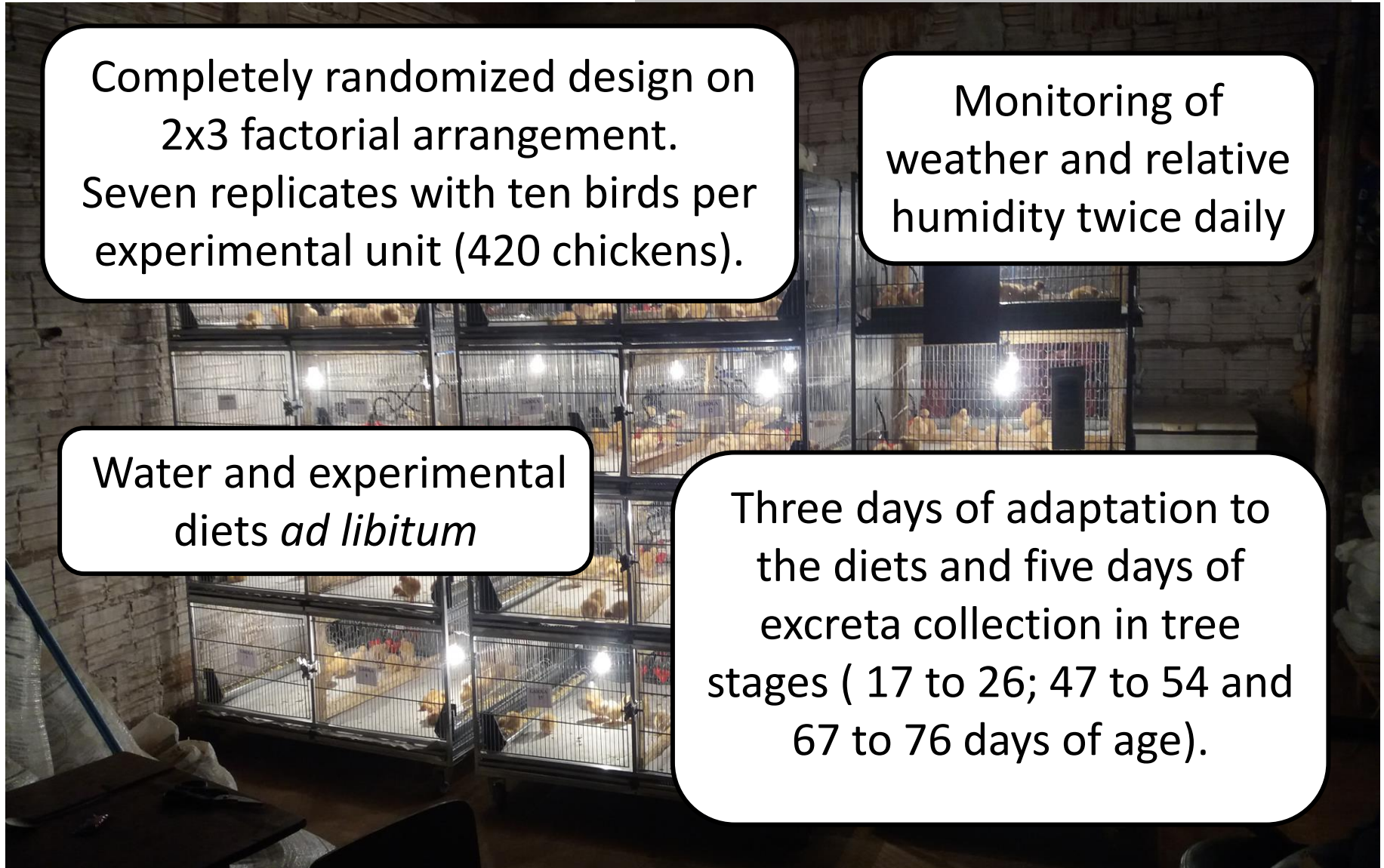
Material and methods

Completely randomized design on
2x3 factorial arrangement.
Seven replicates with ten birds per
experimental unit (420 chickens).

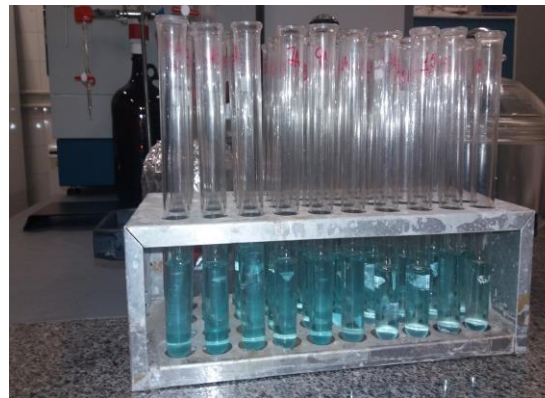
Monitoring of
weather and relative
humidity twice daily

Water and experimental
diets *ad libitum*

Three days of adaptation to
the diets and five days of
excreta collection in tree
stages (17 to 26; 47 to 54 and
67 to 76 days of age).



Material and methods



Silva e Queiroz (2002)

Source: Personal archive

Table 1: Coefficients of Dry Matter Metabolizable of Moringa and Bocaiuva at different stages

Ing	Met	Period (days)			Mean	CV	P Value		
		17-26	47-54	67-76			Met	Sta	M*S
MLF	Tot	85,59 ^{aB}	60,10 ^{cB}	79,72 ^{bB}	75,14	0,190859	<0,0001	<0,0001	<0,0001
	Par	86,29 ^{cA}	87,48 ^{bA}	90,10 ^{aA}	87,96				
	Mea	85,95	73,79	84,91					
BP	Tot	65,85 ^{aB}	60,67 ^{cB}	79,87 ^{aB}	68,80	0,297676	<0,0001	<0,0001	<0,0001
	Par	86,41 ^{cA}	87,51 ^{bA}	90,06 ^{aA}	87,99				
	Mea	76,13	74,09	83,93					

Table 2: Metabolizable Coefficients of Crude Protein of Moringa and Bocaiuva at different ages

Ing	Met	Period (days)			Mean	CV	P Value		
		17-26	47-54	67-76			Met	Stage	M*S
MLF	Tot	60,91 ^{aA}	54,58 ^{cA}	58,96 ^{bA}	58,18	0,494458	<0,0001	<0,0001	<0,0001
	Par	53,26 ^{aB}	21,56 ^{cB}	27,91 ^{bB}	34,24				
	Mea	57,09	38,07	86,87					
BP	Tot	61,28 ^{aA}	54,84 ^{cA}	58,99 ^{bA}	58,37	0,554244	<0,0001	<0,0001	<0,0001
	Par	53,75 ^{aB}	21,81 ^{cB}	27,60 ^{bB}	34,39				
	Mea	57,52	38,33	43,30					

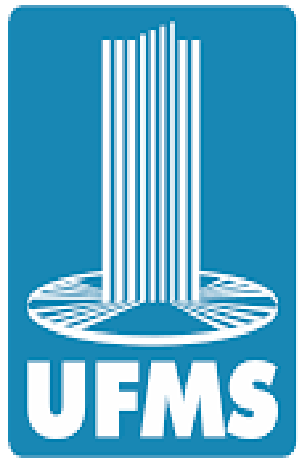
Table 3: Coefficients of Metabolizability of Ethereal Extract of Moringa and Bocaiuva at different ages

Ing	Met	Period (days)			Mean	CV	P Value		
		17-26	47-54	67-76			Met	Stage	M*S
MLF	Tot	84,66 ^{aA}	72,05 ^{cA}	73,39 ^{bA}	76,70	0,307050	<0,0001	<0,0001	<0,0001
	Par	81,64 ^{aB}	51,29 ^{cB}	54,67 ^{bB}	62,53				
	Mea	83,15	61,67	64,03					
BP	Tot	85,59 ^{aA}	72,88 ^{cA}	73,63 ^{bA}	77,37	0,231593	<0,0001	<0,0001	<0,0001
	Par	82,92 ^{aB}	52,52 ^{cB}	54,91 ^{bB}	63,45				
	Mea	84,26	62,70	64,27					

Conclusion

- The partial collection method underestimated the metabolizable values of the nutrients.
- The total collection presented the best nutrient metabolizable values of the nutrients, and indicating that it was the best method for determination of the metabolizable coefficients of the moringa leaves meal and the bocaiuva pulp for slow-growing broiler chickens.

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