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Dehydrated pelleted sainfoin for the growing rabbit: first results from intake and growth test

EAAP, Tallin august

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Introduction and objectives

Sainfoin (Onobrychis viciifolia) contains high ADF and ADL levels associated with a high level of protein, and could be a good alternative to alfalfa for rabbit feeding, but no informations are available about its effect on intake and growth of the rabbit.

Nowadays dehydrated pelleted sainfoin "DpS" (PERLY variety) is available on the market (Multifolia company).

Our aim is to evaluate the intake, growth and health of rabbit fed DpS, as a sole feed (trial 1), or in free choice with a commercial complete feed (trial 2).

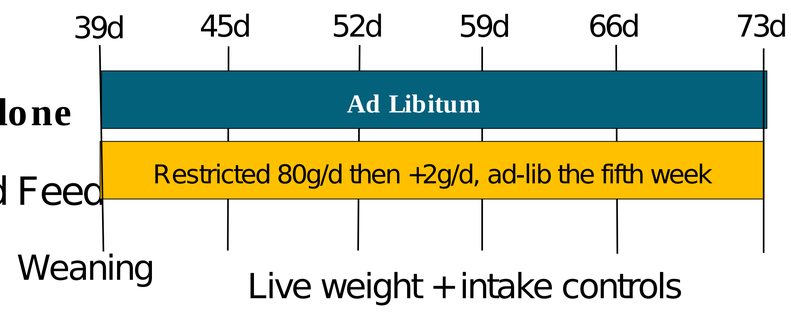
Trials design

Trial 1

30 /group
2 x 6 cages

Sainfoin pellets, alone

Complete pelleted Feed



Breeding unit : INRA, Carmaux

Sainfoin: plant, field, and dehydrated pellets

Feeds characteristics

Sainfoin big pellets: 6mm diameter, 15-23mm length, hardness=93 Mpa, crude protein=17.2%, NDF=37.2 % ADF=30.4%, ADL=12.0%.

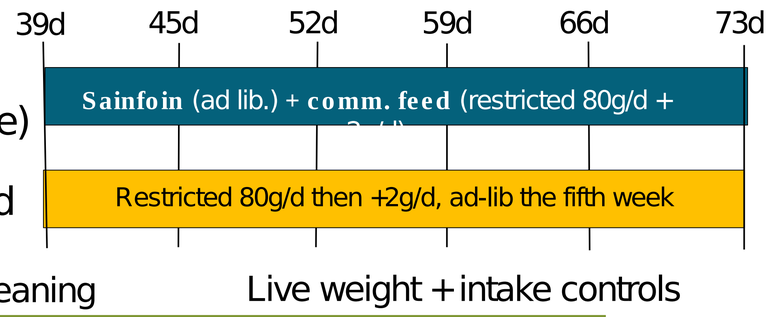
Complete pelleted feed: 4mm diam., 9-12mm length, hardness= 6.5 Mpa, crude protein=15.9%, ADF=18.0, ADL=5.5%)

Trial 2

2 x 8 cages = 96 rabbits
2 x 6 cages = 48 rabbits

Sainfoin pellets & commercial feed (free choice)

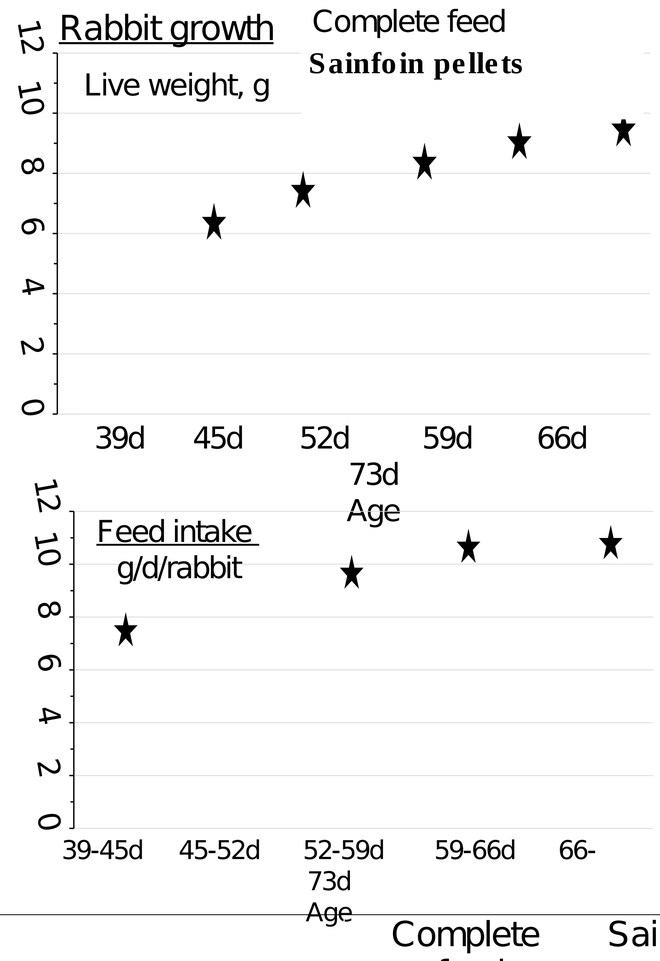
Complete pelleted Feed



Results

Among the two trials, no health problems were detected on the animals.

Trial 1



Growth of rabbit fed only Sainfoin reached 18.5 g/d (39-73d) and was logically lower than with a complete feed (31.2 g/d, P<0.001).

Although the size and hardness of Sainfoin pellets was much higher than for complete feed, the **palatability of Sainfoin was high**, since during the first week after weaning the intake was 78.5g/d for Sainfoin raw pellets , and 69.7 g/d for the complete pelleted feed (P<0.05)

	Complete feed	Sainfoin pellets	*RMSE*	*Prob.*
Weight gain 39-73d., g/d	31.2	18.5	3.0	<0.01
Feed intake 39-73d. , g/d	**84.3**	**85.7**	2.5	NS

Trial 2

Intake* of sainfoin and complete feed - free choice group

	Sainfoin	Complete feed	Total	%
39-66 d	**32.0**	84.5	116.5	**27.5%**
66-73 d	47.0	69.3	116.3	40.4%
39-73 d	35.1	81.4	116.5	30.1%

* : g/d/rabbit, for 2 pens (8 cages associated)

On a free choice basis rabbits ate 30% of Sainfoin pellets and 70% of a complete feed. Sainfoin intake increased at the end of the fattening period

Comparative intake* : free choice group & complete feed

	Sainfoin + complete feed	Complete feed alone
39-66 d	116.5	90.3
66-73 d	116.3	69.3
39-73 d	116.5	81.4

* : g/d/rabbit, for 2 pens (8 cages associated)

The whole feed intake (S+C)was 30% higher than that of control (116.5 vs 81.4 g/d, P<0.05) and the rabbit growth was higher (34.6 vs 30.6, P<0.05).

Conclusion

Palatabiliy of Sainfoin is high although the pellets were hard and of a large size. Dehydrated pelleted **sainfoin** could be fed alone to growing rabbits, without any health problems (as for alfalfa). Added to a complete feed, Sainfoin supply led to a supplementary growth. Further studies are needed to measure the nutritive value of the sainfoin incorporated in a complete feed, and to asses its antiparasitic (coccidiostatic & anthelmintic) potential effect in the rabbit,

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