

NUTRITIONAL EVALUATION OF SOME UNTRADITIONAL FEEDSTUFFS FOR RABBITS

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ABSTRACT

Five digestibility trails were carried out to determine chemical composition, digestion coefficients and feeding value of some untraditional feedstuffs i.e. darawa, guar, cassava and peanut hays compared with clover hay which is considered the most common feedstuffs, used in rabbit diets. Fifteen adult male rabbits (White New Zealand) of about 36 weeks of age were used (three animals for each trail). They were allocated in 15 digestion cages under similar managerial conditions and fed the tested feedstuffs *ad lib*. Their chemical composition revealed markedly high OM content which ranged from 96.5 % (cassava hay) to 46.5 % (guar hay). A suitable percentages of CP were observed in the tested materials being 15.11, 14.43, 19.72, 21.60 and 13.73 % for clover, darawa, guar, cassava and peanut hays, respectively. While CF content was somewhat high but suitable for rabbit being 22.47, 24.76, 21.96, 18.02 and 26.82% for such materials in the same order. Guar hay recorded the highest CP digestion coefficient and DCP values (81.97 and 16.16%), while peanut hay recorded the lowest values (53.87 and 7.39 %). The others recorded intermediate values being (61.50 and 9.29 %); (60.15 and 8.68 %) and (60.33 and 13.03%) for clover, darawa and cassava hays, respectively. Digestibility of CF was relatively high with guar and peanut hays (58.78 and 41.94 %) and relatively low with clover, darawa and cassava hays (29.0, 23.15 and 20.78 %). Concerning OM digestibility, except guar hay which recorded the highest value (77.19 %), all other tested feedstuffs were nearly similar. The best DE value was noticed in guar hay (2809 K cal/Kg) followed by cassava hay (2488 Kcal /Kg), peanut hay (2371 Kcal/Kg), clover hay (2340 Kcal / Kg) and darawa (2153 Kcal /Kg) which had the lowest value. Feeding value in terms of TDN and DCP indicated that guar hay had the highest values followed by cassava hay compared to the other tested feedstuffs, which were nearly similar in such measurements. All the tested feedstuffs covered the recommended allowances of maintenance requirements of TDN and DCP.

It could be concluded that, guar, cassava and peanut hays may be considered good and acceptable ingredients in feeding rabbits compared to clover hay.

Keywords : Rabbits, guar, peanut, cassava, darawa, clover, digestibilities, feeding value.

INTRODUCTION

In the developing countries, as in Egypt, there is a great gap between the person share of animal protein and that in the advanced countries. Rabbits are characterized by high efficiency of producing animal protein for human consumption with relatively cheap cost, because they can efficiently utilize fibrous feeds more than grains. It is commonly known that there is a sharp shortage in the traditional feedstuffs along with the continuous increase in their prices owing to the increased demand all over the world. In addition, the available feedstuffs for feeding rabbits are insufficient due to the great attention for feeding cattle, sheep and poultry.

Therefore it is more necessary than before to search for cheap and available alternative sources of feedstuffs to be used in feeding rabbits.

Clover (*Trifolium alexandrinum*) is one of the most important leguminous forages cultivated in Egypt during winter and is used in feeding all types of livestock either as green or in hay form, however its annual yield is insufficient for all types of animals. Therefore, guar, darawa, cassava leaves and peanut hay could contribute as untraditional alternative forages in feeding animals, specially rabbits (Radwan *et al.*, 1997, El- Sherbiny *et al.*, 1987, and Cheeke, 1987).

Guar (*Cyamopsis tetragonoloba*) is one of legume crops that grown in summer. The feddan in good lands yields about 15 -17 tons green feed, while in the reclaimed lands it yields about 11- 12 tons. Chemical. composition of guar was determined to be 20.2% CP, 1.66% EE, 22.0% CF, 41.6% NFE and 14.55% ash, while its feeding value in term of DE, and TDN were 1641 Kcal / Kg, and 39.3 %, respectively (Radwan *et al.*, 1997). Several studies showed that guar could be used as feedstuff for animals (El-Nouby, 1962; Bo-Gohi, 1981; Chawla *et al.*, 1981 and Radwan *et al.*, 1997).

Darawa (*Zea maize*) is one of grass crops, which is obtained during the cultivation of corn. It is a summer crop and the area of one feddan yields about 13 -16 tons green feed that contains about 90 % moisture. The chemical analysis (on DM basis) was reported by Radwan *et al.* (1997) to be 14.8 % CP, 3.5 % EE, 23.5% CF, 43.7% NFE and 14.5% ash, while its feeding value in terms of DE and TDN were 2810 Kcal/ Kg and 53.4%, respectively. They suggest that darawa could be used as green feed for rabbits during the summer in the absence of clover .

Cassava (*Manihot esculenta*) leaf meal appeared to be a potential source of protein for live stocks and perhaps for human. Dried cassava leaf meal contains 23.99% CP, 7.43% EE, 22.3% CF, 33.32% NFE and 12.96% ash (El. *Sherbinyet al.*, 1987). The nutritive value of cassava leaf meal is somewhat similar or even superior to alfalfa meal (Abdel- Baki *et al.*, 1992 & 1993).

Peanut (*Arachis hypogaea*) is one of the legume crops, it is the green leaves and stems remaining after the harvesting of peanut grain can be used as a feedstuffs . According to the tables of feed compositions (Cheeke, 1987), peanut leaves contains 20.9% CP and 23.6 % CF while the calorific value in terms of DE was 2000 Kcal / Kg. In an early study by Voris *et al.*, (1940), the nutrient digestion coefficients of peanut hay were found to be 47.1% for DM, 55.0% for CP, 25.0% for CF and 65.9 % for NFE.

The present study aimed to evaluate guar, darawa, cassava and peanut hays as untraditional local feedstuffs compared to clover hay through digestibility trails using adult rabbits.

MATERIALS AND METHODS

The present work was carried out in Barrage Poultry Research Station, while the chemical analyses were done at the laboratories of Poultry Nutrition Dept., Animal Production Research Institute, ARC, Cairo, Egypt.

Clover, guar, darawa (young maize) and cassava were cultivated in the available land of Poultry Production Research Station, Barrage (Gezirt. El. Shair), Animal Production Research Institute, ARC. While the peanut green foliage was purchased from some national farms of Ismailia Governorate. The fresh green part of the plant was air dried without direct exposure to sun rays. The dried hays were bagged and stored. Before carrying out the chemical analysis, the dried hays were finely ground. When hays used in digestibility trails, they were chopped (0.5-1.0 cm).

Five digestion trails were conducted to determine, the nutrient digestibility and feeding value in terms of TDN, DE and DCP of the experimental feedstuffs. Fifteen adult rabbits (White New Zealand) of 36 weeks were randomly taken from the farm flock. They were housed in individual digestion cages of 50 X 40 X 40 cm. Three rabbits were used in each trail for five days preliminary period followed by three days collection period. Feed and water were daily offered *ad. Lib.* Feed consumption and feces were quantitatively determined during the collection period. Data of chemical analyses of feed and feces were determined according to AOAC and used in calculating nutrient digestibility and feeding values in term of TDN, DE and DCP as described by Abou Raya *et al.*, (1974). Data were statistically analysed using the general linear model program of SAS (1990). Differences between means were tested by using Duncan's multiple range test (Duncan, 1995).

RESULTS AND DISCUSSION

Chemical composition

The mean values of chemical composition (on DM basis) of the five tested feedstuffs are presented in Table (1).

Table (1) : The chemical composition of the tested feedstuffs .

Ingredients	DM%	Chemical composition (on DM basis %)					
		CP	EE	CF	Ash	NFE	OM
Clover hay	90.20	15.11	2.52	22.47	11.85	48.05	88.15
Darawa hay	92.10	14.43	7.09	24.76	14.34	39.38	85.66
Guar hay	90.30	19.72	1.45	21.96	15.30	41.57	84.70
Cassava hay	90.50	21.60	6.01	18.02	3.50	50.87	96.50
Peanut hay	91.70	13.73	2.91	26.82	13.09	43.45	86.91

The data obtained for CP, EE, CF, NFE and OM percentages of clover, darawa, guar, cassava and peanut hay revealed generally reasonable values. Such values are within the range published by many investigators (Cheeke, 1987; Radwan *et al.*, 1990, Radwan *et al.*, 1997, Ibrahim., 2000 and El-Adawy & Borhai, 2001) for clover hay, (Cheeke, 1987, Etman *et al.*, 1993 and Radwan *et al.*, 1997). for darawa hay, (Gabra *et al.*, 1990 and Radwan *et al.*, 1997) for guar hay, (Montilla, 1976; Ravindran *et al.*, 1983 and El. Hussein *et al.*, 1997) for cassava leaf hay and (Cheeke *et al.*, 1987; Oyawoye *et al.*, 1990., Awadalla *et al.*, 1997, Ibrahim., 2000 and El-Adawy & Borhai., 2001) for peanut tops hay. It is obvious that cassava hay contained the highest level of CP (21.6%)

followed by guar hay (19.72%) while darawa hay and peanut hay were nearly similar being 14.43 and 13.73 %, respectively and close to that of clover hay (15.11%). Cassava hay also recorded the highest percentages of NFE and OM and the lowest values of CF and ash compared to the other tested hays. With the exception of cassava hay, the tested feedstuffs are nearly similar in their CF, ash, NFE and OM contents as shown in Table (1).

Percentage of EE was the highest in darawa hay (7.09%) followed by cassava hay (6.01%) while clover, guar and peanut hays were nearly similar in their EE contents , being 2.52,1.45 and 2.91%, respectively. The chemical composition of any feedstuff is still a primary indicator to the possibility of using such materials in feeding livestock, however, the final evaluation can't be obtained without more information through digestibility and feeding trials.

Nutrients digestion coefficients:

Table (2) shows that CP of guar hay was highly digested (81.97 %) when was higher than the value of 63.82 % reported by (Gabra *et al.* , 1990 with sheep) and close to the value of 82.0 % reported by (Radwan *et al.* , 1997 with rabbits).

Table (2) : Digestibility and ash balance by rabbits fed the tested feedstuffs

Ingredients	Digestion coefficients %					Ash balance
	CP	EE	CF	NEF	OM	
Clover hay	61.50 ^b	54.28 ^b	29.00 ^a	71.64 ^b	58.52 ^b	+
Darawa hay	60.15 ^b	68.76 ^a	23.15 ^d	59.85 ^d	50.03 ^d	+
Guar hay	81.97 ^a	41.12 ^d	58.78 ^a	77.73 ^a	77.19 ^a	+
Cassava hay	60.33 ^b	48.28 ^c	20.78 ^d	64.00 ^c	54.01 ^c	+
Peanut hay	53.87 ^c	66.93 ^a	41.94 ^b	72.53 ^b	59.90 ^b	+

a-b means in the same column with different superscripts are significantly different (P < 0.05).

The CP digestibility of clover, darawa and cassava hays were nearly similar being 61.5, 60.15 and 60.33 %, respectively and are appreciably lower than that of guar hay (81.97 %). Such values were higher than 44.03 % for rabbits fed mixture of 67% green clover and 33% barley grain (Radwan *et al.*, 1990), but lower than 71.5% when rabbits were fed berseem hay (Taie *et al.*, 1996) and 77.86 % when rabbits were fed green oat leaves (Deshmukh *et al.*, 1990) and similar to the values of 65.1% and 60.8 % when rabbits were fed green darawa and guar hay, respectively (Radwan *et al.*, 1997). The lowest value of CP digestibility was obtained with peanut hay (53.86 %) compared to the other tested hays. Such value was somewhat lower than the value of 76.5% which was reported by Awadalla *et al.*(1997) with Rahmany lambs. However, it seemed likely that the protein quality of guar is easier in digestion than those of clover, darawa, cassava and peanut hays .

The EE digestion coefficient of Darawa (68.76%) and Peanut tops (66.93%) were nearly similar and higher than those of clover, cassava and guar in descending order, being 54.28, 48.28 and 41.12 %, respectively. Such data are in agreement with the results of (Radwan *et al.*, 1997) for darawa, clover and guar hays, and (Rao *et al.*, 1987) for peanut tops hay, but lower

than the value of (El-Hussieny *et al.*, 1997) for cassava leaves. In this connection, Zanaty and Ahmed (2000) noted that rabbits received the control diet (berssem -hay was the main source of dietary fiber) had a higher digestibility of all nutrients than those received diets containing corn stover .

The highest digestion coefficient of CF was noticed with guar hay (58.78%) followed by peanut hay (41.94%), clover hay (29.0 %), darawa hay (23.15%) and cassava hay (20.78 %). Crude fiber digestibility of clover, darawa and guar as determined by Radwan *et al.*, (1997) were 29.8,25.5 and 38.2 %, respectively, while El- Hussieny *et al.*, (1997) reported 37.5% CF digestibility for cassava leaves hay. These differences may be due to the quality of fiber in each material, which is affected by some factors such as plant species (legume or grass), the age (old or young), the dryness level, method of treating or analysis and others .

The NEF digestion coefficients of the tested feedstuffs revealed that the highest value (77.73 %) was recorded for guar followed by peanut, clover, cassava and darawa which recorded the lowest value (59.85 %). In this respect, Radwan *et al.*, (1997) reported that when rabbits were fed either clover, darawa or guar, the NFE digestion coefficients were 75.8, 73.4 or 62.2 % (in fresh form) and 49.8, 32.6 or 32.6 % (in hay form), respectively. El -Hussieny *et al.*, (1997) recorded 80.2 % digestion coefficient of NEF for cassava leaves hay. Recently, Ibrahim, (2000) found that substitution of 33.3,66.07 or 100% clover hay with peanut hay in New- Zeland White rabbit diets insignificantly increased the nutrients digestibility and TDN.

With the exception of guar hay, the OM digestibility coefficient of the tested feedstuffs were nearly similar (with slight variations) and were generally lower than that recorded for guar hay. However, such values were suitable for rabbits and within the published results reported by Radwan *et al.*,(1997) for clover, darawa and guar hays and El- Hussieny *et al.*, (1997) for cassava leaves hay.

Several nutritional studies were conducted to evaluate the effect of replacement of clover hay for cassava leaves and stems meals (CLSM) in rabbit diets. El-Gendy, (1994) and Toson *et al.*, (1999) reported that digestibility coefficients of different nutrients of diets containing mixture of CLSM and clover hay meal were significantly ($P<0.05$) higher than those for rabbits fed diets containing either clover hay meal or CLSM each alone.

Concerning ash balance, all tested feedstuffs resulted in positive ash retention indicating that there were no losses of the body minerals when rabbits were fed the tested feedstuffs. In this respect, Gabra *et al.*,(1990) found that guar hay contains 13.28% ash. They also studied its content of major and trace elements being 0.62 % Ca, 0.30 % P, 0.22 % Na, 1.63 % K and 0.14 % Mg as major elements and 148.3 mg Fe, 14.4 mg Cu and 1.21 mg Co / Kg DM as trace elements. Raharjo *et al.*, (1988) showed that cassava tops hay contains 9.3 % ash, 2.02% Ca and 0.40% P. They also found that when rabbits were fed corn leaves, Ca and p balances were negative. Oywoye *et al.*, (1990) found that groundnut (peanut) leaves contain 10.75 % ash, 2.45% Ca, 0.46%P, 0.64% Na and 2.39% K.

Generally, the differences in digestibility and feeding value of the tested hays are due to many factors such as animals (breed, age and purpose of

production), feedstuffs (mixtures, solely material, age of plant, green or dry, chemical composition... etc), housing (individual, groups or flocks), management and laboratory work (analytical methods, apparatus and chemicals). Regardless of these factors, fiber content of any feedstuffs has an important role in its digestibility and feeding value (Cheeke, 1987). The digestive strategy of rabbits involves the selective retention of small particles in the cecum and the rapid excretion of larger particle size, mainly fiber in feces. It is an apparent contradiction that rabbits are herbivorous, forages consuming animals and yet digest fiber very inefficiently. This apparent anomaly is in fact an effective digestive strategy for the efficient use of forages (Cheeke, 1987). The chemical nature of fiber (mainly its content of cellulose, hemicellulose and lignin) in any forage affect greatly on its digestibility of fiber and the other nutrients (protein, fat and carbohydrate) and energy utilization (Cheeke *et al.*, 1985 and Raharjo *et al.*, 1986). Therefore, it is logic to observe some differences in digestibility and feeding value of the tested feedstuffs used in the present study.

Feeding value

The feeding value of clover, darawa, guar, cassava and peanut hays in terms of TDN, DE and DCP are presented in Table (3).

Table (3) : Feeding values of the tested feedstuffs .

Ingredients	Feeding value		
	TDN%	DE(Kcal / Kg)	DCP%
Clover hay	52.98 ^c	2326 ^c	9.29 ^c
Darawa hay	48.95 ^d	2153 ^d	8.68 ^c
Guar hay	63.23 ^a	2809 ^a	16.16 ^a
Cassava hay	58.68 ^b	2651 ^b	13.03 ^b
Peanut hay	54.53 ^c	2371 ^c	7.39 ^d

a-b means in the same column with different superscripts are significantly different (P < 0.05).

Guar hay recorded the highest values of TDN (63.23 %), DE (2809 Kcal / Kg), DCP (16.16 %) and since most of nutrient digestion coefficients of such material surpassed those of the other tested materials. Guar was studied by (Radwan *et al.*, 1997) who found that the feeding value of guar hay in terms of TDN, DE and DCP with rabbits were 39.3 %,1641 Kcal/ Kg and 12.28 % , respectively. Such values were markedly lower than those obtained in the present study, the reason may be due to the breed of rabbits, age of plant, length of cutting degree of dryness and / or the method of analysis. However, with sheep, Gabra *et al.*, (1990) obtained a value of TDN for Guar close to our findings being 60.7 %.

Cassava hay followed guar in its feeding values being ,58.68 %, 2651 Kcal / Kg and 13.03 % for TDN, DE and DCP, respectively. The published value of such material showed that DE value of cassava leaves hay with rabbits was 2651 Kcal / Kg DM (Raharjo *et al.*, 1988) which was lower than the present value (2488 Kcal / Kg). While, El - Hussieny *et al.*, (1997) found that the TDN value of cassava leaves with rabbits was 61.3 % which was nearly

similar to the present value. But, El -Gendy (1994) showed that, when rabbits were fed diet containing 20 % cassava leaves, the TDN value was lower compared with the control. However, Ravindran *et al.*, (1984) concluded that the recorded nutrient digestibility and feeding values for protein and energy utilization suggested that cassava leaf meal has considerable potential as an ingredient in pig diets in the tropics.

Peanut hay and clover hay had nearly similar values of TDN, DE and DCP, while darawa hay had the lowest values compared with the other tested feedstuffs. In this respect, Rao *et al.*, (1987) fed rabbits on diets containing 27 % dried peanut leaves and found that feeding value in terms of TDN and DE were 61.58 % and 2700 Kcal / Kg. Digestible energy (DE) reported by Cheeke (1987) with rabbits for peanut leaves (2000Kcal/ Kg) was markedly lower than the value obtained here in (2371Kcal / Kg). The TDN value for peanut hay reported by A wadalla *et al.*, (1997) with Rahmany lambs (70.6 %) was much higher than our finding with rabbits (54.53 %) and this is logically due to the differences between the digestive tract strategy of lambs and rabbits.

Regarding to the feeding value of darawa (young maize), the present results showed higher values of TDN, DE and DCP than those obtained by Radwan *et al.*, (1997) in the hay form (27.4 %, 1585 Kcal / Kg and 7.02 %) respectively. Cheeke *et al.*, (1977) and Raharjo *et al.*, (1987) determined the DE value for darawa with rabbits being , 1873 and 1985 Kcal / Kg, respectively which were lower than those reported herein. As it is known that ruminants are more efficient than rabbits in utilizing fibrous feeds (forages), therefore, the values of TDN, and DE for darawa reported by Etman *et al.* , (1993) with Rahmany lambs (64.04 %, and 2870 Kcal / Kg) and with Friesian calves (65.0 %, and 2890 Kcal / Kg), respectively were higher than our corresponding values with rabbits.

The results in Table (4) showed that all the feedstuffs satisfy the recommended allowances of TDN and DCP according to NRC , 1977 . The values obtained were (108.86 & 145.83), (213.89 & 289.72) , (210.76 & 422.64) , (227.26 & 385.42) and (106.09 & 109.86) for clover hay, darawa hay , guar hay cassava hay and peanut hay , respectively .

Table (4) : Sufficiency of tested feedstuffs to cover energy and protein recommended allowances of rabbits .

Hay	Intake (g / day)			% of recommended allowances	
	DM	TDN	DCP	TDN	DCP
Clover	113.00	59.87	10.50	108.86	145.83
Darawa	340.33	117.64	20.86	213.89	289.72
Guar	183.33	115.92	30.43	210.76	422.64
Cassava	213.00	124.99	27.75	227.26	385.42
Peanut	107.00	58.35	7.91	106.09	109.86

Maintenance requirements of TDN and DCP were calculated according to NRC , 1977 (55 gm TDN and 7.2 gm DCP).

Generally, there are clear relationships between the chemical composition, the nutrient digestion coefficients and the feeding values of the tested feedstuffs, beside the other factors such as species and age of the plant, the agriculture conditions, methods of harvesting, drying, storing, analysis ..etc. which can influence the relations

However, it could be concluded that guar , cassava, peanut and darawa could be used as forage feedstuffs for rabbits either solely or combined in the rabbit diet specially in the absence of clover hay otherwise it is useful to use mixture of two or more of such materials when it is available to substitute clover hay completely in rabbit diets. This needs fourteen detailed studies specially with producing rabbits .

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التقييم الغذائي لبعض مواد العلف غير التقليدية في علائق الارانب
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أجريت خمس تجارب هضم لتقدير التركيب الكيماوى ومعاملات الهضم والقيمة الغذائية لبعض مواد العلف غير التقليدية وهى دريس كلا من الدراوة والجوار والكاسافا وال فول السوداني مقارنة بدريس البرسيم الذى يعتبر المكون الأساسى المستخدم فى علائق الارانب . تم استخدام ١٥ من ذكور الارانب البالغة (النيوزيلاندى الابيض) عمر ٣٦ اسبوع بمعدل ٣ ارانب لكل معاملة وغذيت لحد الشبع . وقد تم وضع الارانب فى صناديق هضم فردية تحت نفس الظروف البيئية . اوضحت نتائج التحليل الكيماوى لمواد العلف المختبرة ارتفاع محتوى المادة الجافة والتي تراوح نسبتها بين ٩٦ و ٩٦% لدريس الكاسافا الى ٤٦ و ٤٦% لدريس الجوار . وكذلك فقد حوت هذه المواد المختبرة على نسب مناسبة من البروتين الخام وكانت ١١ و ١٥ ، ٤٣ ، ١٤ ، ٧٢ و ١٩ ، ٦٠ ، ٢١ ، ٧٣ و ١٣% لكل من دريس البرسيم والدراوة والجوار والكاسافا والفول السودانى على التوالى بينما كان محتوى هذه المواد من الالياف الخام اعلى قليلا ولكن فى الحدود المناسبة للارانب فكانت هذه القيم ٤٧ و ٢٢ ، ٧٦ و ٢٤ ، ٩٦ و ٢١ ، ٠٢ ، ١٨ ، ٨٢ و ٢٦% لنفس المواد وبنفس الترتيب . وقد سجل دريس الجوار اعلى قيمة لمعاملات هضم البروتين الخام (٩٧ و ٨١%) بينما سجل دريس الفول السودانى اقل قيمة ٧٨ و ٥٣%) وسجلت المواد الاخرى قيم متوسطة فكانت ٥ و ٦١ ، ١٥ و ٦٠ ، ٣٣ و ٦٠% لدريس البرسيم والدراوة والكاسافا على التوالى . وكانت معاملات الهضم للالياف الخام اعلى نسبيا لدريس الجوار والفول السوداني ٧٨ و ٥٨،٩٤ و ٤١% وكانت اقل نسبيا لدريس البرسيم والدراوة والكاسافا (٠٠ و ٢٩ ، ١٥ ، ٢٣ و ٧٨ ، ٢٠%) . وفيما يتعلق بمعامل هضم المادة العضوية فيما عدا دريس الجوار الذى سجل اعلى قيمة (١٩ و ٧٧%) فقد سجلت مواد العلف الاخرى قيم متقاربة . وفيما يختص بالطاقة المهضومة فكانت افضل القيم لدريس الجوار (٢٨٠٩ ك كالورى / كجم) يليها دريس الكاسافا (٢٤٨٨ ك كالورى / كجم) ودريس الفول السوداني (٢٣٧١ ك كالورى / كجم) ودريس البرسيم (٢٣٤٠ ك كالورى / كجم) ودريس الدراوة (٢١٣٥ ك كالورى / كجم) والتي تمثل اقل قيمه . وقد لوضحت القيمة الغذائية معبرا عنها بالمركبات المهضومة الكلية اعلى قيمة لدريس الجوار بالمقارنة بمواد العلف الاخرى والتي كانت متقاربة القيم . وكانت كل مواد العلف المختبرة كافية لتغطية الاحتياجات الحافظة الموصى بها من المركبات المهضومة الكلية والبروتين المهضوم .

ويمكن ان نستخلص من ذلك اعتبار كل من دريس الجوار والكاسافا والفول السوداني مواد علف جيدة ومقبولة فى تغذية الارانب بالمقارنة بدريس البرسيم