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Digestion Trial With Avocado Meal

A. H. Folger

The avocado growers, through the Calavo Growers of California, have begun to dispose of surplus and off-grade avocados by crushing the fruit * to extract the oil, which has a ready sale for use in cosmetics. Since the residual material, when ground, has been suggested for use as a stock feed, the Station was requested to conduct a digestion trial with the meal. Oat hay, the digestibility of which we had previously determined, was fed as a supplement. The seeds were not included. The results are presented in tables 10-12.

It is concluded that the avocado meal used was reasonably palatable, since there was no particular difficulty in getting the animals on feed. Because of its low total digestible nutrient value its feeding value is but little more than that of a good-quality hay. The meal used in this trial had been treated with solvents for the extraction of the fat; produced by the usual pressure extraction process it would, of course, have had a higher total digestible nutrient value because of the higher fat content.



General view of Avocado producing district at Fallbrook, California.

TABLE 10
Total Feed Consumed and Total Feces Collected in Trial
with Avocado Meal

Animal number	Oat hay grams	Avocado Meal grams	Feces (dry) grams
1.....	7,250	5,800	4,740
2.....	7,975	6,525	5,490
3.....	6,750	5,250	4,610
4.....	8,250	6,750	5,310
5.....	6,750	5,250	4,630
6.....	6,750	5,250	4,510

TABLE 11
Chemical Analyses of Feces and Feeds in Trial with Avocado Meal

Animal number or feed analyzed	Dry matter per cent	Crude protein per cent	Nitrogen-free extract per cent	Ether extract per cent	Crude fiber per cent
Feces:					
1.....	100.00	18.70	39.15	1.80	26.65
2.....	100.00	18.83	38.06	2.04	26.60
3.....	100.00	18.83	38.84	1.91	26.95
4.....	100.00	18.95	38.22	1.98	26.85
5.....	100.00	19.37	37.55	2.03	27.39
6.....	100.00	18.92	37.61	2.14	27.05
Feed:					
Oat hay.....	91.49	7.41	46.18	2.85	33.10
Avocado meal.....	91.45	20.41	39.26	1.25	19.27

TABLE 12
Coefficients of Digestibility of Avocado Meal

Animal number	Dry matter per cent	Crude protein per cent	Nitrogen-free extract per cent	Ether extract per cent	Crude fiber per cent
1.....	68.1	47.3	75.5	95.1	90.5
2.....	64.2	44.1	74.2	73.0	85.1
3.....	63.1	41.8	71.8	81.8	83.7
4.....	70.2	48.7	79.2	85.7	91.6
5.....	62.7	39.1	74.3	72.8	81.1
6.....	65.2	43.2	76.4	69.0	85.9
Average.....	65.6	44.0	75.2	79.6	86.3

* From University of California College of Agriculture Bulletin 635, dated, Feb., 1940.