

for example, with a small amount of corn meal and with considerable amount of hay, corn fodder, etc.

It was not intended here to more than barely touch on the subject of cattle feeding. Too much thought cannot be given to it. Enough has been said to indicate that scarcely any single feeding stuff meets all requirements of a perfect ration and to emphasize the advantage of using mixed feed.

III. SOME FLORIDA WEEDS AND GRASSES AS FEEDING STUFFS.

THE BEGGAR WEED.

Diligent search for a hay-producing plant suitable to Florida soil and climate has been made in recent years. The beggar weed seems to meet these demands to large extent, and deserves most careful consideration. Below is given an analysis of it. The analysis expresses the number of pounds of the different nutrients in 100 pounds of the air-dry plant. By air-dry is meant that the plant, after being cut, was cured by exposing it a short while (a day or so) to the sun, and then allowed to lie under shelter. The plant was not rained on or otherwise wet after cutting. A plant will vary in composition according to the soil, the manuring, season, etc. Hence to get at the *average* composition, many analyses of many plants grown in different places, in different years and under different conditions of fertilizing, should be made. The analysis given here is that of two plants only, cut at different stages of development (one in green seed, the other not yet seeding), grown the same season (the one just passed) and on different soil, one high hammock, twenty or thirty years in cultivation, and not recently fertilized, the other flat pine woods richly fertilized. Alongside of the beggar weed analysis is given the average composition of average meadow hay:

	Beggar Weed.	Average Meadow Hay.
Moisture	9.16 per cent.	14.30 per cent.
Crude Ash	4.72 " "	6.20 " "
Crude Protein	11.85 " "	9.70 " "
Crude Fat	2.92 " "	2.50 " "
Crude Fiber	29.29 " "	26.30 " "
Nitrogen-free extract	42.06 " "	41.00 " "
Nutritive ratio	1 to 7 " "	1 to 8 " "

The digestibility of the different nutrients in the beggar weed has, so far as I know, never been determined; but assuming it to be equal to that of average meadow hay, its nutritive ratio is as 1 to 7, whereas that of the hay is as 1 to 8—a decided advantage in favor of the weed.

As to the best time of cutting the weed for hay I am not informed, but on general principles would say, before the seeds have matured and the stalk has hardened too much into indigestible fiber. As has been stated, the albuminoids are most abundant in the young and growing parts of plants. As the plant matures, they are transferred to, and accumulate in, the seeds, at the expense of the other parts of the plant. If the matured seeds are quite small, liable to drop off