

Getting the Best Forage Value from Vetiver

Management guidance for cut-and-carry and grazing. Prepared September 2026.

Summary

Vetiver makes acceptable-to-good forage if it is harvested young and poor forage if it is left to mature. Crude protein, minerals, and palatability all fall with age, while dry matter and fiber rise. The central management decision is therefore the cutting interval, and it involves a real trade-off: short intervals give the best quality and intake, longer intervals give more biomass and deeper roots. Where the hedge is doing conservation work, the root system comes first. Where vetiver is grown mainly as a fodder block, quality can take priority.

Six things determine how much feed value a farmer gets: cutting interval, cutting height, soil fertility, plant density, season, and how the forage is fed. Each is covered below.

Analytes	Units	Vetiver grass			Rhodes	Kikuyu
		Young	Mature	Old	Mature	Mature
Energy (Ruminant)	kCal/kg	522	706	969	563	391
Digestibility	%	51	50	-	44	47
Protein	%	13.1	7.93	6.66	9.89	17.9
Fat	%	3.05	1.30	1.40	1.11	2.56
Calcium	%	0.33	0.24	0.31	0.35	0.33
Magnesium	%	0.19	0.13	0.16	0.13	0.19
Sodium	%	0.12	0.16	0.14	0.16	0.11
Potassium	%	1.51	1.36	1.48	1.61	2.84
Phosphorus	%	0.12	0.06	0.10	0.11	0.43
Iron	mg/kg	186	99	81.40	110	109
Copper	mg/kg	16.5	4.0	10.90	7.23	4.51
Manganese	mg/kg	637	532	348	326	52.4
^{12/19/17} Zinc	mg/kg	26.5	17.5	27.80	40.3	34.1

Figure 1 Feed value analysis of vetiver compared to Rhodes and Kikuyu grass

1. Cutting interval: the key decision

The evidence consistently shows that younger regrowth is better feed. Nigerian work comparing 4-, 6-, and 8-week regrowth found dry matter and fiber increased with age while crude protein and minerals declined. At the Jiangxi Red Soils Institute in China, cattle ate all of the vetiver cut at two-week intervals and 91% of one-month regrowth. In Karnataka, India, farmers cut boundary hedges every two weeks or less for fodder.

Frequent cutting has a cost, however. A recent African study found that three-week intervals gave the highest crude protein but lower total biomass, and that root biomass and depth increased progressively with longer regrowth periods. TVNI's general guidance sits at the conservative end: harvest when leaves are about 60–80 cm long, with a normal interval of about three months, though some farmers cut more often.

Interval	Forage quality	Biomass	Root development
2–4 weeks	Highest protein and intake	Lowest	Weakest; not advised on critical hedges
6–8 weeks	Moderate; quality declining	Moderate	Moderate
About 3 months (60–80 cm leaves)	Acceptable if fed fresh	Highest per cut	Strongest; TVNI standard for hedges

Practical rule. On contour hedges and slope protection, use the longer interval and treat forage as a by-product. In dedicated fodder rows on flat or safe ground, cut at three to six weeks and support the stand with fertilizer or manure to offset the lower biomass.

2. Cutting height

Cut to leave about 20 cm of stem. This keeps the crown healthy, encourages tillering, and on a hedge leaves a porous weir that still handles most rainfall events. Regular cutting and hedge function are complementary: cutting encourages tillering, which thickens the hedge and increases the next harvest. Avoid heavy harvesting until a new hedge has closed.

3. Soil fertility

Nitrogen raises both yield and protein. Chinese work found vetiver grown on pig farm waste had higher crude protein and carotene while heavy metals stayed within acceptable limits. On poor soils, a dressing of manure or nitrogen after each cut is the single cheapest way to improve forage quality. Vetiver grown on sand had lower nutritive value than vetiver grown on soil.

4. Plant density and tillers

Forage yield depends on tiller number. In an irrigated Tunisian trial, densities of 20,000 and 40,000 plants per hectare gave the best dry matter yield, about 14.6–14.7 t/ha. Planting two tillers per slip gave better results than one or three in Bangladeshi work. For hedges, the standard 10–15 cm spacing already provides a dense stand.

5. Season

Nutritive value is highest in spring, lower in autumn, and lowest in winter or the cool dry season. Plan cuts so the best-quality regrowth is fed when other feed is scarce. Vetiver's drought tolerance is its great advantage here: it can supply green feed when other grasses have dried off.

6. Feeding

- **Feed it fresh and young.** Mature leaves are coarse and high in silica, and palatability drops sharply.
- **Mix it.** Vetiver alone is a modest ruminant feed. It works best alongside legumes, other good forages, or a little concentrate.
- **Chop it.** Chopping young cut-and-carry material reduces waste and selective feeding.
- **Graze hard and briefly.** Where animals graze hedges directly, TVNI favors short periods of intensive grazing so livestock eat everything offered rather than picking and choosing.
- **Hay and other stock.** Vetiver can be fed as hay and has been fed to goats, sheep, rabbits, and grass carp. Younger material gives better intake in each case.

7. Planting material

Select sterile, high-biomass stock, since above-ground biomass drives both forage yield and root mass. Vietnamese sources report a newly imported soft-leaved line without leaf hairs that cattle, goats, and sheep eat readily. Its yield and nutritional value have not been independently tested, so it merits a trial before it is promoted.

Sources

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