

# Weeds For Pasture And Hay?

Carl S. Hoveland, Crop & Soil Sciences Dept.  
University of Georgia

**W**eeds are a common component of pastures and hayfields. In late winter, most bermudagrass and bahiagrass pastures have large amounts of volunteer cool season annual weeds. Cattle graze them. Likewise, in summer there are many weed species are found in pastures and hayfields. Weeds are generally considered undesirable in pastures and sprayed or mowed to eliminate the ungrazed weeds. What is often not noted is that many weeds are eaten along with the planted pasture grasses. Many weeds are palatable to livestock and are eaten. Are they any good?

A number of years ago, Gale Buchanan and I conducted research on weed quality. We grew a large number of cool- and warm- season weeds along with some cultivated forages and analyzed them for digestible dry matter and crude protein at several stages of maturity over a two-year period. Some of these results are presented in the table and should be of interest to cattle producers.

## Digestibility

Surprisingly, we found that digestibility of weed species was generally high. At the vegetative stage (leafy and young), all warm-season weeds were more digestible than Coastal bermudagrass. Another weed not included in this study, johnsongrass, has been found to also be of higher quality than bermudagrass or bahiagrass. Cool-season weeds also had high digestibility at the vegetative stage and were comparable to rye and tall fescue. Another weed not on this list, chickweed, has very high digestibility. As with cultivated forage grasses, digestibility of many weeds declined with increasing maturity.

## Crude protein

Both weed and forage species at the vegetative stage had crude protein levels adequate for maintenance and growth of high-producing cattle. Crude protein levels of warm-season weeds declined ~~more~~ <sup>more</sup> than ~~grass~~ <sup>grass</sup> weeds with maturity. ~~more~~ <sup>more</sup> broadleaf

Cool-season weeds generally maintained high levels of crude protein.

## Minerals

Both warm- and cool-season weeds contained enough calcium for moderate producing cattle. Warm-season broadleaf weeds were high in calcium. In contrast, sicklepod, tall morningglory, Florida beggarweed, Carolina geranium, cutleaf evening primrose, wild rye, and little barley were low in phosphorus and suboptimum for high-producing cattle.

Magnesium content of warm-season weeds was adequate. Most cool-season weeds tested were low enough in magnesium to be considered possible inducers of grass tetany if used as the sole source of feed. Henbit at 0.4% and

primrose at 0.3% were unusually high in magnesium. Potassium levels of both weeds and cultivated forages were well above nutrient requirements.

## Value of weeds?

It is apparent from these results that many weed species are as nutritious as cultivated forages and some are even better. Why not just grow weeds and forget about weed control in pastures and hayfields? There are two major problems: (1) most weed species are not high yielding, and (2) many weeds are unpalatable and would not usually be consumed by grazing animals. Sicklepod, coffee senna, hemp sesbania,

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| Species                              | Digestibility |        | Crude protein |        |
|--------------------------------------|---------------|--------|---------------|--------|
|                                      | Vegetative    | Mature | Vegetative    | Mature |
| %-----                               |               |        |               |        |
| <b>WARM SEASON WEEDS AND FORAGES</b> |               |        |               |        |
| <b>Broadleaf weeds</b>               |               |        |               |        |
| Sicklepod                            | 84            | 71     | 22            | 17     |
| Tall morningglory                    | 82            | 76     | 20            | 14     |
| Florida beggarweed                   | 74            | 55     | 22            | 13     |
| Redroot pigweed                      | 73            | 64     | 24            | 11     |
| <b>Grass weeds</b>                   |               |        |               |        |
| Fall panicum                         | 72            | 54     | 19            | 7      |
| Crabgrass                            | 79            | 63     | 14            | 6      |
| Crowfootgrass                        | 67            | 43     | 16            | 8      |
| <b>Cultivated forage</b>             |               |        |               |        |
| Coastal bermudagrass                 | 58            | 43     | 16            | 8      |
| <b>COOL SEASON WEEDS AND FORAGES</b> |               |        |               |        |
| <b>Broadleaf weeds</b>               |               |        |               |        |
| Carolina geranium                    | 78            | 68     | 19            | 11     |
| Cutleaf evening primrose             | 72            | 52     | 21            | 11     |
| Henbit                               | 80            | 75     | 20            | 16     |
| Virginia pepperweed                  | 86            | 63     | 22            | 17     |
| Curly dock                           | 73            | 51     | 23            | 16     |
| <b>Grass weeds</b>                   |               |        |               |        |
| Wild rye                             | ←             | 80     | ←             | 60     |
|                                      | 7             |        |               | ↔ 23   |
| Cheatgrass                           | 81            | 61     | 23            | 14     |
| Little barley                        | 82            | 62     | 24            | 14     |
| <b>Cultivated forages</b>            |               |        |               |        |
| Rye                                  | 79            | 60     | 28            | 10     |
| Tall fescue                          | 68            | 47     | 20            | 12     |
| Ladino clover                        | 81            | 78     | 26            | 23     |



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prickly sida, jimsonweed, crowfoot grass, primrose, curly dock, and cheatgrass are examples of unpalatable weeds. However, these weeds could become part of the animal's diet in hay and especially silage.

Some weeds can be useful additions to a forage program when managed properly. During late winter and spring, palatable winter weeds such as henbit, chickweed, Carolina geranium, and little barley (until heading) can provide high-quality grazing on dormant bermudagrass or bahiagrass sods. In summer, crabgrass is a highly palatable forage that can furnish excellent quality grazing and/or hay if fertilized. Probably, crabgrass furnishes more grazing in summer than we realize. When fertilized, crabgrass can be highly productive. Other weeds are eaten along with pasture grasses and add variety to the diet. Weeds can sometimes be useful additions to a forage program but when unpalatable weeds increase in a pasture, herbicide treatment will be necessary. Problems with persistent, spreading, unpalatable weeds such as horsenettle, thistles, curly dock, bitter sneezeweed, blackberry, buttercup, dogfennel, and smutgrass should be dealt with promptly by application of a recommended herbicide at the proper time. An excellent publication "Forage Weed Management" is available from your county agent.

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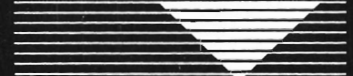


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