matter forage intake varies by animal species and class and is often influenced by what forage is offered and how much. To determine stocking rate and carrying capacity, the concept of animal units is often used; this gives a much better measure of pasture
required, as compared to using animal numbers. One animal unit is based on the daily forage intake of one 1,000 pounds of dry cow (about 25 pounds of dry forage per day). Table 84 gives some typical animal unit values for various species and classes of livestock.

Estimating the amount of acres required to pasture a herd or flock depends not only on the feed requirements of the animals, but also on the available forage produced. Pasture growth is dependent upon plant species, soil characteristics, topography, tempera-

| Dalry boel stown <br> Ewes whth lambs | Top graze cool-season grass-legume mixtures (excipt tall lescue) or cioce graze and supplemem with siage. Graze Brasaica crope when available. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1. Graze cool-season grass-legume mixtures | 1 Graze cool-season grasslegurne muxtures except tall fescue: stockpiled brdstoot trefoll. Brasaca crope | 1. As in Junt-August <br> 2. Brasaca crops | i Slockpied tall lescue <br> a. Nitrogen fentilzes <br> b. Mixture with legumes <br> 2. Late-seeded Brassica |
| Dry 0 wes | Closely graze cool-season grast-logume mixtures. |  |  | 1. Slockpied tall iescue <br> a. Nitrogen fertulized <br> b. Mixture with legumes |
| Lambe | Top-graze cool-season grass-logume mixtures. | 1. Top-graze coot-sasson grass-legume muxtures. <br> 2. Brassuca crops. <br> 3. Stockpiled birdstoot trefoll |  | 1. Slockpiled tall lascue <br> a. Nitrogen fertuized <br> b. Mixture with iegurmes <br> 2. Late-seeded Brassicas |
| Herrees | 1. Cool-semmon grass. legume mixtures. Best grameas timotry, Kentucky bluegrass. anooth brome. Beat regune: white clover. | As in Apni-May. | As in April-May | 1. Slockpiled tall lescun? <br> a. Nitrogen lertalized <br> b. Mixture with legumen |

${ }^{2}$ Keep close watch on carite grazing lescue durng this period: be ready to move to other pastures.
${ }^{3}$ Mares enght weeks prior to loaing should be removed from tail lescue pastures

## Bachatile

| 1000-1b dry cow | 1.0 |
| :---: | :---: |
| 1300-16 dry cow | 1.3 |
| 1000-1b lactating cow and calt (1st 4 months after calving) | 1.4 |
| 1300-lb lactating cow and call (1st 4 months after calving) | 1.6 |
| 2000-1b mature bull | 1.7 |
| 550-1b growing.finishing heifor (1.0 lb/d gain) | 1.0 |
| 550-lb growing-finishing steer (2.0 ${ }^{\text {to/d gain) }}$ | 1.23 |

## Shaen

110-10 breod ow
132-lb breod owe
154-lb brood ewe
175-1b brood ewe
$300-\mathrm{lb}$ mature ram
110-10 132-lb replacement owe, lambe, and yearlings
220-ib replacement ram, lambs, and yearlings
Dairy ${ }^{1}$
1000-lb darry cow (maintenance)
800-1b darry cow (last 2 months of gestation)
$1000-\mathrm{lb}$ darry cow (last 2 months of gestation)
1300-Ib darry cow (last 2 months of gestation)
$1500-\mathrm{bb}$ mature dairy bull
$2000-\mathrm{lb}$ mature dairy bull
$550-\mathrm{b}$ growing dairy herfer

Table 84. Dry matter forage requirements of various specles and classes of livestock as expressed in animal units. 1. Animal units for lactating cows are difficult to determine because of supplemental feeding.

1-inch I.D. Bearing.

1.125-inch I.D
Bearing.


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ture and soil moisture. Because of the variability in pasture growth, we can only estimate the amount of pasture required for grazing. Components Of A Pasture System
There are many possible types of pasture that can provide forage for grazing animals. Their use should be based on their suitability to the soil site, the animal enterprise, and the planned grazing management. Table 83 is designed as a guide to help in planning for adequate pasture availability and forage quality for various animal enterprises over the whole grazing season. Specific information about species and varieties may be found in the 1989-90 Agronomy Guide. Permanent Cool-
Season Pasture
Land that is not suitable for crop production, due to poor soil characteristics or topography is often overgrazed and underfertilized. With proper management, these pastures can provide significant amounts of forage to many dairy and livestock farms.

Kentucky bluegrass, the species most tolerant to close grazing is the cool-season grass commonly found in permanent pasture. In addition, more productive forage species such as tall fescue or reed canarygrass can be grown on permanent pasture sites, often with a legume. Other grasses may also be found in permanent pastures, but they do not persist as well.
Semi-Permanent CoolSeason Pasture
When properly managed, most perennial cool-season legumes and grasses grown for hay and silage can also be used for pasture. Often these pastures are incorporated in the crop rotation, and when grown on good soils and properly managed, can be very productive.

## Permanent Warm-

 Season PastureWarm-season perennial grasses, including switchgrass, big bluestem and Indian grass, grow well from mid-June through September, can provide adequate pasture when cool-season pastures are often inadequate, and are especially suited for beef cattle.
Table 85 provides some estimated values of the acres required for grazing animals for various types of pasture.

