



# Southern Iowa Grazing and Forage Budgets for Beef Cows

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Southern Iowa soils and topography are conducive to pasture and beef cattle. The McNay Memorial Research and Demonstration Farm is located in this region.

The farm has a beef cow herd used for research purposes. The cows and replacement heifers are grazed predominantly on improved cool-season grass pastures. There are approximately 300 spring-calving cows and 100 fall-calving cows. Grazing season is mid-April to mid-October or about six months (180 days), dependent on grass growth in the spring.

## Materials and Methods

Animal units for the various beef cattle types are shown in Table 1. The cattle inventory (herd) for 2020 and 2021 is shown in Table 2 and Table 3, respectively. In 2020, there were 451 head (361 cows, 78 yearling heifers, and 12 bulls) (Table 2). In 2021, there were 484 head (372 cows, 97 yearling heifers, and 15 bulls) (Table 3).

Head of cattle multiplied by grazing days equals total grazing days, which when multiplied by the Animal Unit (AU) value for the type of cattle equals total AU days by type. When all AU days are summed, the total AU grazing days for the farm for the season is generated.

In 2020, there were 91,446 AU grazing days (Table 2). In 2021, there were 99,805 AU grazing days or 9.1% more (Table 3). This was due to greater numbers of cattle grazing and earlier grazing of some of the herds.

**Table 1. Animal unit for beef cattle type.**

Pair (1,200 lb. cow + calf)	1.50
Two-year old (1,000 lb. cow + calf)	1.20
Yearling (750)	0.75
Dry cow (1,200 lb.)	1.20
Mature bull (1,800 lb.)	1.80
1,000 lb. cow (3% intake)	1.00

**Table 2. 2020 spring/summer grazing including cattle inventory, grazing days, total grazing days, Animal Unit (AU), and total AU days.\***

Type	Head	Days	Total days	Animal unit	Total AU days
6+ year-old cow	97	168	16,296	1.50	24,444
3-5 year-old cow	99	167	16,533	1.50	24,800
2 year-old cow	63	169	10,647	1.20	12,776
Yearling heifer	78	160	12,480	0.75	9,360
Fall calving cow	102	156	15,912	1.20	19,094
Bull (breeding season)	12	45	540	1.80	972
Total	451		72,408		91,446

\*Grazing season April 29 to October 15 depending on herd.

**Table 3. 2021 spring/summer grazing including cattle inventory, grazing days, total grazing days, Animal Unit (AU), and total AU days.\***

Type	Head	Days	Total days	Animal unit	Total AU days
6+ year-old cow	95	172	16,340	1.50	24,510
3-5 year-old cow	95	163	15,485	1.50	23,228
2 year-old cow	67	164	10,988	1.20	13,186
Yearling heifer	97	182	17,634	0.75	13,241
Fall calving cow	115	177	20,355	1.20	24,426
Bull (breeding season)	15	45	540	1.80	972
Total	484		81,497		99,805

\*Grazing season April 29 to October 15 depending on herd.

The farm has 690 acres of improved grass legume pasture plus additional unimproved pastures that include river bottom, timber, ditches, and lots. In 2020, the additional unimproved pasture areas were valued as the equivalent of 494 acres for a total of 1,129 acres of improved pasture equivalent. The additional unimproved areas were valued as the equivalent of 361 acres of improved pasture in 2021 for a total of 1,051 acres improved pasture equivalent.

## **Results and Discussion**

For 2020, the 91,466 total AU grazing days divided by 1,184 acres equals 82 AU grazing days per acre. The 72,408 total grazing days divided by 1,184 acres equals 66 cow days per acre.

For 2021, the 99,805 total AU grazing days divided by 1,051 acres equals 77 AU grazing days per acre. The 81,497 total grazing days divided by 1,051 acres equals 61 cow grazing days per acre.

For the 2021-2022 winter-feeding period, 100 acres of stockpiled fescue generated 57 grazing days per acre.

