

AGRICULTURAL GUIDE

JAN 07 1986

Beef Feeding

Published by the University of Missouri-Columbia Extension Division

Nutrient requirements for growing and finishing beef cattle

Homer B. Sewell, Department of Animal Science, College of Agriculture,
From Nutrient Requirements of Beef Cattle, Sixth Revised Edition, National Research Council, 1984.

Use this guide in conjunction with UMC Guides 2051, "Feed composition tables;" 2058, "Vitamins for beef cattle;" 2080, "Minerals for beef cattle—

Needs;" and 2081, "Minerals for beef cattle—Supplements." See UMC Guide 2068 for "Nutrient requirements for beef breeding animals."

TABLE 1 Nutrient Requirements for Growing-Finishing Cattle (Daily Nutrients per Animal)

| Wt ^a lbs. | ADG lbs. | DM ^b lbs. | Prot lbs. | NE _m Mcal | NE _g Mcal | TDN lbs. | Ca lbs. | P lbs. |
|---------------------------|-------------|-------------------------|--------------|-------------------------|-------------------------|-------------|------------|-----------|
| Medium-Frame Steer Calves | | | | | | | | |
| 300 | 0.5 | 7.8 | .75 | 3.90 | 1.95 | 4.21 | .024 | .016 |
| 300 | 1.0 | 8.4 | .95 | 4.78 | 2.60 | 4.91 | .037 | .020 |
| 300 | 1.5 | 8.7 | 1.14 | 5.56 | 3.30 | 5.48 | .050 | .024 |
| 300 | 2.0 | 8.9 | 1.32 | 6.23 | 3.91 | 6.00 | .064 | .028 |
| 300 | 2.5 | 8.9 | 1.48 | 7.03 | 4.53 | 6.54 | .077 | .032 |
| 300 | 3.0 | 8.0 | 1.60 | 7.60 | 5.12 | 6.80 | .090 | .037 |
| 400 | 0.5 | 9.7 | .87 | 4.85 | 2.42 | 5.23 | .026 | .017 |
| 400 | 1.0 | 10.4 | 1.06 | 5.92 | 3.22 | 6.08 | .039 | .021 |
| 400 | 1.5 | 10.8 | 1.24 | 6.91 | 4.10 | 6.80 | .050 | .027 |
| 400 | 2.0 | 11.0 | 1.41 | 7.70 | 4.84 | 7.42 | .061 | .028 |
| 400 | 2.5 | 11.0 | 1.56 | 8.69 | 5.61 | 8.08 | .074 | .033 |
| 400 | 3.0 | 10.0 | 1.65 | 9.50 | 6.40 | 8.50 | .086 | .037 |
| 500 | 0.5 | 11.5 | .98 | 5.75 | 2.87 | 6.21 | .028 | .019 |
| 500 | 1.0 | 12.3 | 1.16 | 7.01 | 3.81 | 7.19 | .039 | .024 |
| 500 | 1.5 | 12.8 | 1.33 | 8.19 | 4.86 | 8.06 | .051 | .028 |
| 500 | 2.0 | 13.1 | 1.49 | 9.17 | 5.76 | 8.84 | .061 | .031 |
| 500 | 2.5 | 13.0 | 1.63 | 10.27 | 6.63 | 9.55 | .072 | .035 |
| 500 | 3.0 | 11.8 | 1.69 | 11.21 | 7.55 | 10.03 | .081 | .037 |
| 600 | 0.5 | 13.2 | 1.08 | 6.60 | 3.30 | 7.12 | .030 | .023 |
| 600 | 1.0 | 14.1 | 1.26 | 8.03 | 4.37 | 8.24 | .039 | .026 |
| 600 | 1.5 | 14.7 | 1.42 | 9.40 | 5.58 | 9.26 | .051 | .030 |
| 600 | 2.0 | 15.0 | 1.57 | 10.50 | 6.60 | 10.12 | .060 | .033 |
| 600 | 2.5 | 14.9 | 1.69 | 11.77 | 7.59 | 10.95 | .068 | .035 |
| 600 | 3.0 | 13.5 | 1.73 | 12.82 | 8.64 | 11.47 | .076 | .039 |
| 700 | 0.5 | 14.8 | 1.18 | 7.40 | 3.70 | 7.99 | .032 | .026 |
| 700 | 1.0 | 15.8 | 1.35 | 9.00 | 4.89 | 9.24 | .042 | .028 |
| 700 | 1.5 | 16.5 | 1.50 | 10.56 | 6.27 | 10.39 | .051 | .033 |
| 700 | 2.0 | 16.8 | 1.65 | 11.76 | 7.39 | 11.34 | .057 | .035 |
| 700 | 2.5 | 16.7 | 1.75 | 13.19 | 8.51 | 12.27 | .066 | .036 |
| 700 | 3.0 | 15.2 | 1.77 | 14.44 | 9.72 | 12.92 | .074 | .039 |

Table 1 (continued)

| Wt ^a lbs. | ADG lbs. | DM ^b lbs. | Prot lbs. | NE _m Mcal | NE _g Mcal | TDN lbs. | Ca lbs. | P lbs. |
|--|-------------|-------------------------|--------------|-------------------------|-------------------------|-------------|------------|-----------|
| 800 | 0.5 | 16.4 | 1.27 | 8.20 | 4.10 | 8.85 | .036 | .027 |
| 800 | 1.0 | 17.5 | 1.44 | 9.97 | 5.42 | 10.23 | .042 | .033 |
| 800 | 1.5 | 18.2 | 1.58 | 11.64 | 6.91 | 11.46 | .050 | .034 |
| 800 | 2.0 | 18.6 | 1.72 | 13.02 | 8.18 | 12.55 | .057 | .037 |
| 800 | 2.5 | 18.5 | 1.81 | 14.61 | 9.43 | 13.59 | .064 | .038 |
| 800 | 3.0 | 16.8 | 1.81 | 15.96 | 10.75 | 14.28 | .070 | .042 |
| 900 | 0.5 | 17.9 | 1.36 | 8.95 | 4.47 | 9.66 | .037 | .032 |
| 900 | 1.0 | 19.1 | 1.52 | 10.88 | 5.92 | 11.17 | .043 | .034 |
| 900 | 1.5 | 19.9 | 1.66 | 12.73 | 7.56 | 12.54 | .049 | .037 |
| 900 | 2.0 | 20.3 | 1.79 | 14.21 | 8.93 | 13.70 | .057 | .041 |
| 900 | 2.5 | 20.2 | 1.87 | 15.96 | 10.30 | 14.85 | .063 | .040 |
| 900 | 3.0 | 18.3 | 1.85 | 17.38 | 11.71 | 15.55 | .068 | .042 |
| 1000 | 0.5 | 19.3 | 1.45 | 9.65 | 4.82 | 10.42 | .040 | .034 |
| 1000 | 1.0 | 20.7 | 1.60 | 11.79 | 6.42 | 12.11 | .043 | .037 |
| 1000 | 1.5 | 21.5 | 1.74 | 13.76 | 8.17 | 13.54 | .052 | .039 |
| 1000 | 2.0 | 22.0 | 1.85 | 15.40 | 9.68 | 14.85 | .055 | .042 |
| 1000 | 2.5 | 21.9 | 1.92 | 17.30 | 11.17 | 16.10 | .059 | .042 |
| 1000 | 3.0 | 19.8 | 1.88 | 18.81 | 12.67 | 16.83 | .063 | .043 |
| Large-Frame Steer Calves & Compensating Medium-Frame Yearling Steers | | | | | | | | |
| 300 | 0.5 | 8.2 | 0.77 | 3.94 | 1.89 | 4.30 | .025 | .015 |
| 300 | 1.0 | 8.7 | 0.99 | 4.69 | 2.44 | 4.87 | .040 | .020 |
| 300 | 1.5 | 9.1 | 1.19 | 5.37 | 3.00 | 5.41 | .053 | .024 |
| 300 | 2.0 | 9.4 | 1.37 | 6.02 | 3.57 | 5.97 | .066 | .028 |
| 300 | 2.5 | 9.6 | 1.55 | 6.72 | 4.22 | 6.48 | .081 | .033 |
| 300 | 3.0 | 9.6 | 1.73 | 7.39 | 4.70 | 6.91 | .095 | .037 |
| 300 | 3.5 | 9.3 | 1.88 | 7.99 | 5.30 | 7.30 | .107 | .042 |
| 400 | 0.5 | 10.1 | 0.89 | 4.84 | 2.32 | 5.30 | .026 | .017 |
| 400 | 1.0 | 10.8 | 1.10 | 5.83 | 3.02 | 6.05 | .040 | .022 |
| 400 | 1.5 | 11.3 | 1.30 | 6.67 | 3.72 | 6.72 | .053 | .026 |
| 400 | 2.0 | 11.7 | 1.47 | 7.49 | 4.45 | 7.43 | .067 | .030 |
| 400 | 2.5 | 11.9 | 1.64 | 8.33 | 5.24 | 8.03 | .077 | .036 |
| 400 | 3.0 | 11.9 | 1.81 | 9.16 | 5.83 | 8.57 | .090 | .039 |
| 400 | 3.5 | 11.5 | 1.94 | 9.89 | 6.55 | 9.03 | .103 | .041 |
| 500 | 0.5 | 12.0 | 1.00 | 5.76 | 2.76 | 6.30 | .029 | .020 |
| 500 | 1.0 | 12.8 | 1.21 | 6.91 | 3.58 | 7.17 | .042 | .024 |
| 500 | 1.5 | 13.4 | 1.40 | 7.91 | 4.42 | 7.97 | .052 | .028 |
| 500 | 2.0 | 13.8 | 1.57 | 8.83 | 5.24 | 8.76 | .063 | .033 |
| 500 | 2.5 | 14.0 | 1.73 | 9.80 | 6.16 | 9.45 | .077 | .035 |
| 500 | 3.0 | 14.0 | 1.88 | 10.78 | 6.86 | 10.08 | .088 | .039 |
| 500 | 3.5 | 13.6 | 2.00 | 11.70 | 7.75 | 10.68 | .099 | .043 |
| 600 | 0.5 | 13.8 | 1.11 | 6.62 | 3.17 | 7.24 | .030 | .025 |
| 600 | 1.0 | 14.6 | 1.31 | 7.88 | 4.09 | 8.18 | .042 | .026 |
| 600 | 1.5 | 15.3 | 1.50 | 9.03 | 5.05 | 9.10 | .053 | .031 |
| 600 | 2.0 | 15.8 | 1.66 | 10.11 | 6.00 | 10.03 | .063 | .035 |
| 600 | 2.5 | 16.1 | 1.81 | 11.27 | 7.08 | 10.87 | .076 | .037 |
| 600 | 3.0 | 16.1 | 1.95 | 12.40 | 7.89 | 11.59 | .084 | .042 |
| 600 | 3.5 | 15.6 | 2.05 | 13.42 | 8.89 | 12.25 | .095 | .044 |

Table 1 (continued)

| Wt ^a lbs. | ADG lbs. | DM ^b lbs. | Prot lbs. | NE _m Mcal | NE _g Mcal | TDN lbs. | Ca lbs. | P lbs. |
|-------------------------|-------------|-------------------------|--------------|-------------------------|-------------------------|-------------|------------|-----------|
| 700 | 0.5 | 15.4 | 1.21 | 7.39 | 3.54 | 8.08 | .032 | .026 |
| 700 | 1.0 | 16.4 | 1.41 | 8.86 | 4.59 | 9.18 | .044 | .031 |
| 700 | 1.5 | 17.2 | 1.59 | 10.15 | 5.68 | 10.23 | .053 | .033 |
| 700 | 2.0 | 17.8 | 1.74 | 11.39 | 6.76 | 11.30 | .064 | .037 |
| 700 | 2.5 | 18.0 | 1.88 | 12.60 | 7.92 | 12.15 | .072 | .039 |
| 700 | 3.0 | 18.0 | 2.01 | 13.86 | 8.82 | 12.96 | .081 | .041 |
| 700 | 3.5 | 17.5 | 2.10 | 15.05 | 9.97 | 13.74 | .091 | .045 |
| 800 | 0.5 | 17.1 | 1.31 | 8.21 | 3.93 | 8.98 | .036 | .031 |
| 800 | 1.0 | 18.2 | 1.51 | 9.83 | 5.10 | 10.19 | .044 | .033 |
| 800 | 1.5 | 19.0 | 1.68 | 11.21 | 6.27 | 11.30 | .053 | .036 |
| 800 | 2.0 | 19.6 | 1.82 | 12.54 | 7.45 | 12.45 | .063 | .039 |
| 800 | 2.5 | 19.9 | 1.96 | 13.93 | 8.76 | 13.43 | .069 | .042 |
| 800 | 3.0 | 19.9 | 2.07 | 15.32 | 9.75 | 14.33 | .079 | .044 |
| 800 | 3.5 | 19.3 | 2.15 | 16.60 | 11.00 | 15.15 | .087 | .046 |
| 900 | 0.5 | 18.6 | 1.40 | 8.93 | 4.28 | 9.76 | .037 | .033 |
| 900 | 1.0 | 19.8 | 1.60 | 10.69 | 5.54 | 11.09 | .045 | .036 |
| 900 | 1.5 | 20.8 | 1.77 | 12.27 | 6.86 | 12.38 | .056 | .037 |
| 900 | 2.0 | 21.4 | 1.90 | 13.70 | 8.13 | 13.59 | .062 | .042 |
| 900 | 2.5 | 21.8 | 2.03 | 15.26 | 9.59 | 14.71 | .067 | .043 |
| 900 | 3.0 | 21.7 | 2.13 | 16.71 | 10.63 | 15.62 | .078 | .045 |
| 900 | 3.5 | 21.1 | 2.19 | 18.14 | 12.03 | 16.56 | .084 | .048 |
| 1000 | 0.5 | 20.2 | 1.49 | 9.70 | 4.65 | 10.60 | .040 | .034 |
| 1000 | 1.0 | 21.5 | 1.69 | 11.61 | 6.02 | 12.04 | .049 | .036 |
| 1000 | 1.5 | 22.5 | 1.85 | 13.27 | 7.42 | 13.39 | .056 | .040 |
| 1000 | 2.0 | 23.2 | 1.98 | 14.85 | 8.82 | 14.73 | .063 | .041 |
| 1000 | 2.5 | 23.6 | 2.09 | 16.52 | 10.38 | 15.93 | .068 | .045 |
| 1000 | 3.0 | 23.6 | 2.19 | 18.17 | 11.56 | 16.99 | .075 | .047 |
| 1000 | 3.5 | 22.8 | 2.24 | 19.61 | 12.99 | 17.90 | .079 | .048 |
| 1100 | 0.5 | 21.7 | 1.58 | 10.42 | 4.99 | 11.39 | .041 | .039 |
| 1100 | 1.0 | 23.1 | 1.77 | 12.47 | 6.47 | 12.94 | .048 | .041 |
| 1100 | 1.5 | 24.1 | 1.93 | 14.22 | 7.95 | 14.34 | .055 | .043 |
| 1100 | 2.0 | 24.9 | 2.05 | 15.94 | 9.46 | 15.81 | .062 | .045 |
| 1100 | 2.5 | 25.3 | 2.16 | 17.71 | 11.13 | 17.08 | .066 | .045 |
| 1100 | 3.0 | 25.3 | 2.25 | 19.48 | 12.40 | 18.22 | .073 | .048 |
| 1100 | 3.5 | 24.5 | 2.28 | 21.07 | 13.96 | 19.23 | .078 | .051 |
| Medium-Frame Bulls | | | | | | | | |
| 300 | 0.5 | 7.8 | .76 | 3.82 | 1.87 | 4.17 | .024 | .016 |
| 300 | 1.0 | 8.3 | .96 | 4.65 | 2.49 | 4.77 | .040 | .020 |
| 300 | 1.5 | 8.6 | 1.15 | 5.33 | 3.01 | 5.29 | .053 | .024 |
| 300 | 2.0 | 8.8 | 1.34 | 5.98 | 3.61 | 5.76 | .066 | .029 |
| 300 | 2.5 | 8.9 | 1.52 | 6.59 | 4.18 | 6.23 | .081 | .033 |
| 300 | 3.0 | 8.7 | 1.68 | 7.31 | 4.70 | 6.65 | .095 | .037 |
| 400 | 0.5 | 9.6 | .87 | 4.70 | 2.30 | 5.14 | .027 | .017 |
| 400 | 1.0 | 10.3 | 1.07 | 5.77 | 3.09 | 5.92 | .040 | .022 |
| 400 | 1.5 | 10.7 | 1.26 | 6.63 | 3.74 | 6.58 | .052 | .027 |
| 400 | 2.0 | 11.0 | 1.44 | 7.48 | 4.51 | 7.20 | .066 | .030 |
| 400 | 2.5 | 11.1 | 1.60 | 8.21 | 5.22 | 7.77 | .077 | .035 |
| 400 | 3.0 | 10.8 | 1.74 | 9.07 | 5.83 | 8.26 | .090 | .039 |

Table 1 (continued)

| Wt ^a lbs. | ADG lbs. | DM ^b lbs. | Prot lbs. | NE _m Mcal | NE _g Mcal | TDN lbs. | Ca lbs. | P lbs. |
|--|-------------|-------------------------|--------------|-------------------------|-------------------------|-------------|------------|-----------|
| 500 | 0.5 | 11.4 | .98 | 5.59 | 2.74 | 6.09 | .028 | .019 |
| 500 | 1.0 | 12.1 | 1.17 | 6.77 | 3.63 | 6.96 | .042 | .024 |
| 500 | 1.5 | 12.7 | 1.35 | 7.87 | 4.44 | 7.81 | .053 | .029 |
| 500 | 2.0 | 13.0 | 1.52 | 8.84 | 5.33 | 8.51 | .064 | .032 |
| 500 | 2.5 | 13.1 | 1.68 | 9.69 | 6.16 | 9.17 | .077 | .035 |
| 500 | 3.0 | 12.8 | 1.81 | 10.75 | 6.91 | 9.79 | .088 | .040 |
| 600 | 0.5 | 13.1 | 1.08 | 6.42 | 3.14 | 7.01 | .031 | .025 |
| 600 | 1.0 | 13.9 | 1.27 | 7.78 | 4.17 | 7.99 | .042 | .026 |
| 600 | 1.5 | 14.5 | 1.44 | 8.99 | 5.07 | 8.92 | .052 | .030 |
| 600 | 2.0 | 14.9 | 1.61 | 10.13 | 6.10 | 9.76 | .064 | .036 |
| 600 | 2.5 | 15.0 | 1.75 | 11.10 | 7.05 | 10.50 | .075 | .037 |
| 600 | 3.0 | 14.7 | 1.86 | 12.30 | 7.94 | 11.24 | .084 | .043 |
| 700 | 0.5 | 14.7 | 1.18 | 7.20 | 3.53 | 7.86 | .034 | .026 |
| 700 | 1.0 | 15.6 | 1.37 | 8.74 | 4.68 | 8.97 | .044 | .031 |
| 700 | 1.5 | 16.3 | 1.53 | 10.10 | 5.70 | 10.02 | .052 | .033 |
| 700 | 2.0 | 16.7 | 1.69 | 11.36 | 6.85 | 10.94 | .063 | .037 |
| 700 | 2.5 | 16.8 | 1.82 | 12.43 | 7.90 | 11.76 | .072 | .040 |
| 700 | 3.0 | 16.5 | 1.92 | 13.86 | 8.91 | 12.62 | .081 | .041 |
| 800 | 0.5 | 16.2 | 1.27 | 7.94 | 3.89 | 8.67 | .036 | .031 |
| 800 | 1.0 | 17.3 | 1.45 | 9.69 | 5.19 | 9.95 | .043 | .033 |
| 800 | 1.5 | 18.0 | 1.61 | 11.16 | 6.30 | 11.07 | .052 | .036 |
| 800 | 2.0 | 18.5 | 1.76 | 12.58 | 7.58 | 12.12 | .061 | .039 |
| 800 | 2.5 | 18.6 | 1.89 | 13.76 | 8.74 | 13.02 | .071 | .043 |
| 800 | 3.0 | 18.2 | 1.97 | 15.29 | 9.83 | 13.92 | .080 | .044 |
| 900 | 0.5 | 17.7 | 1.36 | 8.67 | 4.25 | 9.47 | .037 | .034 |
| 900 | 1.0 | 18.9 | 1.54 | 10.58 | 5.67 | 10.87 | .047 | .036 |
| 900 | 1.5 | 19.7 | 1.69 | 12.21 | 6.89 | 12.11 | .055 | .037 |
| 900 | 2.0 | 20.2 | 1.83 | 13.74 | 8.28 | 13.23 | .063 | .042 |
| 900 | 2.5 | 20.3 | 1.95 | 15.02 | 9.54 | 14.21 | .069 | .045 |
| 900 | 3.0 | 19.9 | 2.02 | 16.72 | 10.75 | 15.22 | .078 | .046 |
| 1000 | 0.5 | 19.2 | 1.45 | 9.41 | 4.61 | 10.27 | .040 | .034 |
| 1000 | 1.0 | 20.4 | 1.62 | 11.42 | 6.12 | 11.73 | .049 | .037 |
| 1000 | 1.5 | 21.3 | 1.77 | 13.20 | 7.45 | 13.10 | .055 | .040 |
| 1000 | 2.0 | 21.8 | 1.90 | 14.82 | 8.94 | 14.28 | .061 | .041 |
| 1000 | 2.5 | 22.0 | 2.01 | 16.28 | 10.34 | 15.40 | .068 | .044 |
| 1000 | 3.0 | 21.5 | 2.07 | 18.06 | 11.61 | 16.45 | .075 | .047 |
| 1100 | 0.5 | 20.6 | 1.54 | 10.09 | 4.94 | 11.02 | .041 | .039 |
| 1100 | 1.0 | 21.9 | 1.70 | 12.26 | 6.57 | 12.59 | .048 | .041 |
| 1100 | 1.5 | 22.9 | 1.85 | 14.20 | 8.01 | 14.08 | .054 | .043 |
| 1100 | 2.0 | 23.4 | 1.97 | 15.91 | 9.59 | 15.33 | .061 | .044 |
| 1100 | 2.5 | 23.6 | 2.07 | 17.46 | 11.09 | 16.52 | .066 | .047 |
| 1100 | 3.0 | 23.1 | 2.11 | 19.40 | 12.47 | 17.67 | .074 | .048 |
| Large-Frame Bull Calves and Compensating Large-Frame Yearling Steers | | | | | | | | |
| 300 | 0.5 | 7.9 | .77 | 3.79 | 1.82 | 4.15 | .024 | .016 |
| 300 | 1.0 | 8.4 | .98 | 4.54 | 2.35 | 4.70 | .039 | .020 |
| 300 | 1.5 | 8.8 | 1.18 | 5.19 | 2.90 | 5.24 | .055 | .025 |
| 300 | 2.0 | 9.0 | 1.38 | 5.67 | 3.33 | 5.63 | .068 | .029 |
| 300 | 2.5 | 9.2 | 1.56 | 6.35 | 3.86 | 6.12 | .084 | .033 |
| 300 | 3.0 | 9.2 | 1.74 | 6.90 | 4.32 | 6.49 | .099 | .039 |
| 300 | 3.5 | 9.1 | 1.91 | 7.46 | 4.82 | 6.87 | .113 | .044 |
| 300 | 4.0 | 8.2 | 2.04 | 7.87 | 5.41 | 7.05 | .125 | .048 |

Table 1 (continued)

| Wt ^a lbs. | ADG lbs. | DM ^b lbs. | Prot lbs. | NE _m Mcal | NE _g Mcal | TDN lbs. | Ca lbs. | P lbs. |
|-------------------------|-------------|-------------------------|--------------|-------------------------|-------------------------|-------------|------------|-----------|
| 400 | 0.5 | 9.8 | .89 | 4.70 | 2.25 | 5.14 | .026 | .017 |
| 400 | 1.0 | 10.4 | 1.09 | 5.61 | 2.91 | 5.82 | .041 | .022 |
| 400 | 1.5 | 10.9 | 1.29 | 6.43 | 3.60 | 6.48 | .055 | .026 |
| 400 | 2.0 | 11.2 | 1.48 | 7.06 | 4.14 | 7.00 | .068 | .031 |
| 400 | 2.5 | 11.4 | 1.65 | 7.87 | 4.79 | 7.58 | .082 | .035 |
| 400 | 3.0 | 11.5 | 1.82 | 8.62 | 5.40 | 8.11 | .094 | .040 |
| 400 | 3.5 | 11.3 | 1.98 | 9.27 | 5.99 | 8.53 | .108 | .044 |
| 400 | 4.0 | 10.2 | 2.08 | 9.79 | 6.73 | 8.77 | .121 | .049 |
| 500 | 0.5 | 11.6 | 1.00 | 5.57 | 2.67 | 6.09 | .029 | .022 |
| 500 | 1.0 | 12.3 | 1.20 | 6.64 | 3.44 | 6.89 | .044 | .026 |
| 500 | 1.5 | 12.9 | 1.39 | 7.61 | 4.26 | 7.67 | .055 | .028 |
| 500 | 2.0 | 13.2 | 1.58 | 8.32 | 4.88 | 8.25 | .069 | .033 |
| 500 | 2.5 | 13.5 | 1.74 | 9.31 | 5.67 | 8.98 | .080 | .038 |
| 500 | 3.0 | 13.6 | 1.90 | 10.20 | 6.39 | 9.59 | .092 | .042 |
| 500 | 3.5 | 13.4 | 2.05 | 10.99 | 7.10 | 10.12 | .103 | .047 |
| 500 | 4.0 | 12.0 | 2.13 | 11.52 | 7.92 | 10.32 | .116 | .048 |
| 600 | 0.5 | 13.3 | 1.10 | 6.38 | 3.06 | 6.98 | .030 | .024 |
| 600 | 1.0 | 14.1 | 1.30 | 7.61 | 3.95 | 7.90 | .044 | .028 |
| 600 | 1.5 | 14.8 | 1.48 | 8.73 | 4.88 | 8.81 | .055 | .031 |
| 600 | 2.0 | 15.2 | 1.67 | 9.58 | 5.62 | 9.50 | .067 | .035 |
| 600 | 2.5 | 15.5 | 1.82 | 10.69 | 6.51 | 10.31 | .079 | .040 |
| 600 | 3.0 | 15.5 | 1.97 | 11.62 | 7.28 | 10.93 | .090 | .042 |
| 600 | 3.5 | 15.3 | 2.11 | 12.55 | 8.11 | 11.55 | .101 | .046 |
| 600 | 4.0 | 13.8 | 2.16 | 13.25 | 9.11 | 11.87 | .112 | .051 |
| 700 | 0.5 | 14.9 | 1.20 | 7.15 | 3.43 | 7.82 | .033 | .027 |
| 700 | 1.0 | 15.9 | 1.40 | 8.59 | 4.45 | 8.90 | .046 | .030 |
| 700 | 1.5 | 16.6 | 1.57 | 9.79 | 5.48 | 9.88 | .058 | .035 |
| 700 | 2.0 | 17.0 | 1.75 | 10.71 | 6.29 | 10.63 | .066 | .037 |
| 700 | 2.5 | 17.4 | 1.90 | 12.01 | 7.31 | 11.57 | .076 | .042 |
| 700 | 3.0 | 17.5 | 2.04 | 13.12 | 8.22 | 12.34 | .087 | .044 |
| 700 | 3.5 | 17.2 | 2.16 | 14.10 | 9.12 | 12.99 | .096 | .048 |
| 700 | 4.0 | 15.5 | 2.20 | 14.88 | 10.23 | 13.33 | .108 | .051 |
| 800 | 0.5 | 16.5 | 1.30 | 7.92 | 3.79 | 8.66 | .035 | .031 |
| 800 | 1.0 | 17.5 | 1.49 | 9.45 | 4.90 | 9.80 | .045 | .033 |
| 800 | 1.5 | 18.3 | 1.66 | 10.80 | 6.04 | 10.89 | .057 | .037 |
| 800 | 2.0 | 18.8 | 1.84 | 11.84 | 6.96 | 11.75 | .066 | .039 |
| 800 | 2.5 | 19.2 | 1.97 | 13.25 | 8.06 | 12.77 | .077 | .044 |
| 800 | 3.0 | 19.3 | 2.11 | 14.47 | 9.07 | 13.61 | .087 | .046 |
| 800 | 3.5 | 19.0 | 2.22 | 15.58 | 10.07 | 14.34 | .095 | .049 |
| 800 | 4.0 | 17.1 | 2.24 | 16.42 | 11.29 | 14.71 | .104 | .053 |
| 900 | 0.5 | 18.0 | 1.39 | 8.64 | 4.14 | 9.45 | .039 | .032 |
| 900 | 1.0 | 19.2 | 1.58 | 10.37 | 5.38 | 10.75 | .048 | .034 |
| 900 | 1.5 | 20.0 | 1.74 | 11.80 | 6.60 | 11.90 | .058 | .040 |
| 900 | 2.0 | 20.6 | 1.92 | 12.98 | 7.62 | 12.87 | .066 | .041 |
| 900 | 2.5 | 21.0 | 2.04 | 14.49 | 8.82 | 13.96 | .076 | .044 |
| 900 | 3.0 | 21.1 | 2.17 | 15.82 | 9.92 | 14.87 | .084 | .048 |
| 900 | 3.5 | 20.8 | 2.27 | 17.06 | 11.02 | 15.70 | .094 | .050 |
| 900 | 4.0 | 18.7 | 2.27 | 17.95 | 12.34 | 16.08 | .099 | .052 |

Table 1 (continued)

| Wt ^a lbs. | ADG lbs. | DM ^b lbs. | Prot lbs. | NE _m Mcal | NE _g Mcal | TDN lbs. | Ca lbs. | P lbs. |
|----------------------------|-------------|-------------------------|--------------|-------------------------|-------------------------|-------------|------------|-----------|
| 1000 | 0.5 | 19.5 | 1.48 | 9.36 | 4.48 | 10.24 | .041 | .035 |
| 1000 | 1.0 | 20.7 | 1.66 | 11.13 | 5.79 | 11.59 | .051 | .039 |
| 1000 | 1.5 | 21.7 | 1.83 | 12.80 | 7.16 | 12.91 | .058 | .041 |
| 1000 | 2.0 | 22.3 | 1.99 | 14.05 | 8.25 | 13.94 | .067 | .045 |
| 1000 | 2.5 | 22.7 | 2.11 | 15.66 | 9.53 | 15.09 | .075 | .045 |
| 1000 | 3.0 | 22.8 | 2.23 | 17.10 | 10.72 | 16.07 | .082 | .048 |
| 1000 | 3.5 | 22.5 | 2.32 | 18.45 | 11.92 | 16.99 | .090 | .054 |
| 1000 | 4.0 | 20.2 | 2.30 | 19.39 | 13.33 | 17.37 | .097 | .054 |
| 1100 | 0.5 | 20.9 | 1.57 | 10.03 | 4.81 | 10.97 | .044 | .039 |
| 1100 | 1.0 | 22.3 | 1.75 | 12.04 | 6.24 | 12.49 | .051 | .042 |
| 1100 | 1.5 | 23.3 | 1.91 | 13.75 | 7.69 | 13.86 | .060 | .044 |
| 1100 | 2.0 | 23.9 | 2.07 | 15.06 | 8.84 | 14.94 | .067 | .045 |
| 1100 | 2.5 | 24.2 | 2.18 | 16.70 | 10.16 | 16.09 | .073 | .048 |
| 1100 | 3.0 | 24.5 | 2.29 | 18.37 | 11.51 | 17.27 | .078 | .051 |
| 1100 | 3.5 | 24.1 | 2.37 | 19.76 | 12.77 | 18.19 | .087 | .053 |
| 1100 | 4.0 | 21.7 | 2.33 | 20.83 | 14.32 | 18.66 | .093 | .054 |
| Medium-Frame Heifer Calves | | | | | | | | |
| 300 | 0.5 | 7.5 | .73 | 4.05 | 2.10 | 4.20 | .022 | .016 |
| 300 | 1.0 | 8.0 | .91 | 5.04 | 2.88 | 4.96 | .035 | .018 |
| 300 | 1.5 | 8.2 | 1.08 | 5.90 | 3.61 | 5.62 | .048 | .022 |
| 300 | 2.0 | 8.0 | 1.22 | 6.72 | 4.40 | 6.16 | .059 | .026 |
| 400 | 0.5 | 9.3 | .84 | 5.02 | 2.60 | 5.21 | .024 | .018 |
| 400 | 1.0 | 9.9 | 1.01 | 6.24 | 3.56 | 6.14 | .036 | .020 |
| 400 | 1.5 | 10.2 | 1.17 | 7.34 | 4.49 | 6.99 | .046 | .024 |
| 400 | 2.0 | 10.0 | 1.29 | 8.40 | 5.50 | 7.70 | .057 | .029 |
| 500 | 0.5 | 11.0 | .94 | 5.94 | 3.08 | 6.16 | .026 | .019 |
| 500 | 1.0 | 11.8 | 1.11 | 7.43 | 4.25 | 7.32 | .035 | .025 |
| 500 | 1.5 | 12.1 | 1.25 | 8.71 | 5.32 | 8.29 | .046 | .027 |
| 500 | 2.0 | 11.8 | 1.35 | 9.91 | 6.49 | 9.09 | .053 | .028 |
| 600 | 0.5 | 12.6 | 1.04 | 6.80 | 3.53 | 7.06 | .029 | .023 |
| 600 | 1.0 | 13.5 | 1.19 | 8.50 | 4.86 | 8.37 | .038 | .027 |
| 600 | 1.5 | 13.8 | 1.32 | 9.94 | 6.07 | 9.45 | .044 | .029 |
| 600 | 2.0 | 13.5 | 1.41 | 11.34 | 7.42 | 10.39 | .051 | .031 |
| 700 | 0.5 | 14.1 | 1.13 | 7.61 | 3.95 | 7.90 | .031 | .027 |
| 700 | 1.0 | 15.1 | 1.28 | 9.51 | 5.44 | 9.36 | .038 | .029 |
| 700 | 1.5 | 15.5 | 1.39 | 11.16 | 6.82 | 10.62 | .043 | .031 |
| 700 | 2.0 | 15.2 | 1.46 | 12.77 | 8.36 | 11.70 | .049 | .033 |
| 800 | 0.5 | 15.6 | 1.22 | 8.42 | 4.37 | 8.74 | .033 | .028 |
| 800 | 1.0 | 16.7 | 1.36 | 10.52 | 6.01 | 10.35 | .037 | .030 |
| 800 | 1.5 | 17.2 | 1.46 | 12.38 | 7.57 | 11.78 | .041 | .032 |
| 800 | 2.0 | 16.8 | 1.51 | 14.11 | 9.24 | 12.94 | .047 | .034 |
| 900 | 0.5 | 17.1 | 1.31 | 9.23 | 4.78 | 9.58 | .036 | .030 |
| 900 | 1.0 | 18.3 | 1.44 | 11.53 | 6.59 | 11.35 | .040 | .033 |
| 900 | 1.5 | 18.8 | 1.53 | 13.54 | 8.27 | 12.88 | .041 | .036 |
| 900 | 2.0 | 18.3 | 1.56 | 15.37 | 10.06 | 14.09 | .046 | .035 |

Table 1 (continued)

| Wt ^a lbs. | ADG lbs. | DM ^b lbs. | Prot lbs. | NE _m Mcal | NE _g Mcal | TDN lbs. | Ca lbs. | P lbs. |
|--|-------------|-------------------------|--------------|-------------------------|-------------------------|-------------|------------|-----------|
| 1000 | 0.5 | 18.5 | 1.39 | 9.99 | 5.18 | 10.36 | .037 | .035 |
| 1000 | 1.0 | 19.8 | 1.51 | 12.47 | 7.13 | 12.28 | .039 | .036 |
| 1000 | 1.5 | 20.3 | 1.59 | 14.62 | 8.93 | 13.90 | .043 | .036 |
| 1000 | 2.0 | 19.8 | 1.61 | 16.63 | 10.89 | 15.25 | .046 | .038 |
| Large-Frame Heifer Calves & Compensating Medium-Frame Yearling Heifers | | | | | | | | |
| 300 | 0.5 | 7.8 | .76 | 3.90 | 1.95 | 4.21 | .024 | .016 |
| 300 | 1.0 | 8.4 | .95 | 4.87 | 2.78 | 4.96 | .038 | .020 |
| 300 | 1.5 | 8.8 | 1.13 | 5.72 | 3.43 | 5.63 | .051 | .022 |
| 300 | 2.0 | 8.9 | 1.30 | 6.59 | 4.09 | 6.18 | .061 | .027 |
| 300 | 2.5 | 8.7 | 1.45 | 7.31 | 4.78 | 6.70 | .075 | .030 |
| 400 | 0.5 | 9.7 | .87 | 4.85 | 2.42 | 5.24 | .026 | .017 |
| 400 | 1.0 | 10.5 | 1.06 | 6.09 | 3.36 | 6.19 | .038 | .022 |
| 400 | 1.5 | 10.9 | 1.23 | 7.08 | 4.25 | 6.98 | .049 | .024 |
| 400 | 2.0 | 11.1 | 1.38 | 8.21 | 5.11 | 7.71 | .059 | .029 |
| 400 | 2.5 | 10.8 | 1.51 | 9.07 | 5.94 | 8.32 | .070 | .033 |
| 500 | 0.5 | 11.5 | .98 | 5.75 | 2.87 | 6.21 | .026 | .019 |
| 500 | 1.0 | 12.4 | 1.16 | 7.19 | 3.97 | 7.32 | .037 | .025 |
| 500 | 1.5 | 12.9 | 1.32 | 8.38 | 5.03 | 8.26 | .049 | .026 |
| 500 | 2.0 | 13.1 | 1.46 | 9.69 | 6.03 | 9.10 | .058 | .031 |
| 500 | 2.5 | 12.8 | 1.57 | 10.75 | 7.04 | 9.86 | .068 | .033 |
| 600 | 0.5 | 13.2 | 1.08 | 6.60 | 3.30 | 7.13 | .029 | .024 |
| 600 | 1.0 | 14.1 | 1.25 | 8.18 | 4.51 | 8.32 | .039 | .027 |
| 600 | 1.5 | 14.8 | 1.41 | 9.62 | 5.77 | 9.47 | .049 | .028 |
| 600 | 2.0 | 15.0 | 1.54 | 11.10 | 6.90 | 10.42 | .057 | .033 |
| 600 | 2.5 | 14.6 | 1.63 | 12.26 | 8.03 | 11.24 | .064 | .035 |
| 700 | 0.5 | 14.8 | 1.18 | 7.40 | 3.70 | 7.99 | .031 | .027 |
| 700 | 1.0 | 15.9 | 1.34 | 9.22 | 5.09 | 9.38 | .040 | .029 |
| 700 | 1.5 | 16.6 | 1.49 | 10.79 | 6.47 | 10.62 | .048 | .031 |
| 700 | 2.0 | 16.8 | 1.61 | 12.43 | 7.73 | 11.68 | .055 | .034 |
| 700 | 2.5 | 16.4 | 1.68 | 13.78 | 9.02 | 12.63 | .062 | .036 |
| 800 | 0.5 | 16.4 | 1.27 | 8.20 | 4.10 | 8.86 | .033 | .028 |
| 800 | 1.0 | 17.6 | 1.43 | 10.21 | 5.63 | 10.38 | .042 | .032 |
| 800 | 1.5 | 18.3 | 1.57 | 11.89 | 7.14 | 11.71 | .046 | .033 |
| 800 | 2.0 | 18.6 | 1.67 | 13.76 | 8.56 | 12.93 | .052 | .035 |
| 800 | 2.5 | 18.1 | 1.74 | 15.20 | 9.95 | 13.94 | .059 | .038 |
| 900 | 0.5 | 17.8 | 1.36 | 8.90 | 4.45 | 9.61 | .036 | .032 |
| 900 | 1.0 | 19.2 | 1.52 | 11.14 | 6.14 | 11.33 | .042 | .034 |
| 900 | 1.5 | 20.0 | 1.64 | 13.00 | 7.80 | 12.80 | .046 | .036 |
| 900 | 2.0 | 20.3 | 1.74 | 15.02 | 9.34 | 14.11 | .053 | .036 |
| 900 | 2.5 | 19.8 | 1.78 | 16.63 | 10.89 | 15.25 | .057 | .039 |
| 1000 | 0.5 | 19.3 | 1.45 | 9.65 | 4.82 | 10.42 | .037 | .035 |
| 1000 | 1.0 | 20.8 | 1.60 | 12.06 | 6.66 | 12.27 | .044 | .037 |
| 1000 | 1.5 | 21.7 | 1.71 | 14.10 | 8.46 | 13.89 | .045 | .039 |
| 1000 | 2.0 | 22.0 | 1.80 | 16.28 | 10.12 | 15.29 | .051 | .039 |
| 1000 | 2.5 | 21.5 | 1.83 | 18.06 | 11.82 | 16.55 | .054 | .039 |

Table 1 (continued)

| Wt ^a lbs. | ADG lbs. | DM ^b lbs. | Prot lbs. | NE _m Mcal | NE _g Mcal | TDN lbs. | Ca lbs. | P lbs. |
|-------------------------|-------------|-------------------------|--------------|-------------------------|-------------------------|-------------|------------|-----------|
| 1100 | 0.5 | 20.8 | 1.54 | 10.40 | 5.20 | 11.23 | .039 | .037 |
| 1100 | 1.0 | 22.3 | 1.68 | 12.93 | 7.14 | 13.16 | .045 | .040 |
| 1100 | 1.5 | 23.3 | 1.78 | 15.14 | 9.09 | 14.91 | .047 | .042 |
| 1100 | 2.0 | 23.6 | 1.86 | 17.46 | 10.86 | 16.40 | .049 | .042 |
| 1100 | 2.5 | 23.1 | 1.88 | 19.40 | 12.70 | 17.79 | .051 | .041 |

TABLE 2 Requirements for Growing and Finishing Beef Cattle (Nutrient Concentration in Diet Dry Matter).

| Wt ^a lbs. | ADG lbs. | DM ^b lbs. | Prot % | NE _m Mcal/lb | NE _g Mcal/lb | TDN % | Ca % | P % |
|---------------------------|-------------|-------------------------|-----------|----------------------------|----------------------------|----------|---------|--------|
| Medium-frame steer calves | | | | | | | | |
| 300 | 0.5 | 7.8 | 9.6 | 0.50 | 0.25 | 54.0 | 0.31 | 0.20 |
| | 1.0 | 8.4 | 11.4 | 0.57 | 0.31 | 58.5 | 0.45 | 0.24 |
| | 1.5 | 8.7 | 13.2 | 0.64 | 0.38 | 63.0 | 0.58 | 0.28 |
| | 2.0 | 8.9 | 14.8 | 0.70 | 0.44 | 67.5 | 0.72 | 0.32 |
| | 2.5 | 8.9 | 16.7 | 0.79 | 0.51 | 73.5 | 0.87 | 0.37 |
| | 3.0 | 8.0 | 19.9 | 0.95 | 0.64 | 85.0 | 1.13 | 0.47 |
| | 400 | 0.5 | 9.7 | 8.9 | 0.50 | 0.25 | 54.0 | 0.27 |
| 1.0 | | 10.4 | 10.3 | 0.57 | 0.31 | 58.5 | 0.38 | 0.21 |
| 1.5 | | 10.8 | 11.5 | 0.64 | 0.38 | 63.0 | 0.47 | 0.25 |
| 2.0 | | 11.0 | 12.7 | 0.70 | 0.44 | 67.5 | 0.56 | 0.26 |
| 2.5 | | 11.0 | 14.2 | 0.79 | 0.51 | 73.5 | 0.68 | 0.30 |
| 3.0 | | 10.0 | 16.6 | 0.95 | 0.64 | 85.0 | 0.86 | 0.37 |
| 500 | | 0.5 | 11.5 | 8.5 | 0.50 | 0.25 | 54.0 | 0.25 |
| | 1.0 | 12.3 | 9.5 | 0.57 | 0.31 | 58.5 | 0.32 | 0.20 |
| | 1.5 | 12.8 | 10.5 | 0.64 | 0.38 | 63.0 | 0.40 | 0.22 |
| | 2.0 | 13.1 | 11.4 | 0.70 | 0.44 | 67.5 | 0.47 | 0.24 |
| | 2.5 | 13.0 | 12.5 | 0.79 | 0.51 | 73.5 | 0.56 | 0.27 |
| | 3.0 | 11.8 | 14.4 | 0.95 | 0.64 | 85.0 | 0.69 | 0.32 |
| | 600 | 0.5 | 13.2 | 8.2 | 0.50 | 0.25 | 54.0 | 0.23 |
| 1.0 | | 14.1 | 9.0 | 0.57 | 0.31 | 58.5 | 0.28 | 0.19 |
| 1.5 | | 14.7 | 9.8 | 0.64 | 0.38 | 63.0 | 0.35 | 0.21 |
| 2.0 | | 15.0 | 10.5 | 0.70 | 0.44 | 67.5 | 0.40 | 0.22 |
| 2.5 | | 14.9 | 11.4 | 0.79 | 0.51 | 73.5 | 0.46 | 0.24 |
| 3.0 | | 13.5 | 12.9 | 0.95 | 0.64 | 85.0 | 0.57 | 0.29 |
| 700 | | 0.5 | 14.8 | 7.9 | 0.50 | 0.25 | 54.0 | 0.22 |
| | 1.0 | 15.8 | 8.6 | 0.57 | 0.31 | 58.5 | 0.27 | 0.18 |
| | 1.5 | 16.5 | 9.2 | 0.64 | 0.38 | 63.0 | 0.31 | 0.20 |
| | 2.0 | 16.8 | 9.8 | 0.70 | 0.44 | 67.5 | 0.34 | 0.21 |
| | 2.5 | 16.7 | 10.5 | 0.79 | 0.51 | 73.5 | 0.40 | 0.22 |
| | 3.0 | 15.2 | 11.7 | 0.95 | 0.64 | 85.0 | 0.49 | 0.26 |
| | 800 | 0.5 | 16.4 | 7.7 | 0.50 | 0.25 | 54.0 | 0.22 |
| 1.0 | | 17.5 | 8.3 | 0.57 | 0.31 | 58.5 | 0.24 | 0.19 |
| 1.5 | | 18.2 | 8.8 | 0.64 | 0.38 | 63.0 | 0.28 | 0.19 |
| 2.0 | | 18.6 | 9.2 | 0.70 | 0.44 | 67.5 | 0.31 | 0.20 |
| 2.5 | | 18.5 | 9.8 | 0.79 | 0.51 | 73.5 | 0.35 | 0.21 |
| 3.0 | | 16.8 | 10.8 | 0.95 | 0.64 | 85.0 | 0.42 | 0.25 |
| 900 | | 0.5 | 17.9 | 7.6 | 0.50 | 0.25 | 54.0 | 0.21 |
| | 1.0 | 19.1 | 8.0 | 0.57 | 0.31 | 58.5 | 0.23 | 0.18 |
| | 1.5 | 19.9 | 8.4 | 0.64 | 0.38 | 63.0 | 0.25 | 0.19 |
| | 2.0 | 20.3 | 8.8 | 0.70 | 0.44 | 67.5 | 0.28 | 0.20 |
| | 2.5 | 20.2 | 9.3 | 0.79 | 0.51 | 73.5 | 0.31 | 0.20 |
| | 3.0 | 18.3 | 10.1 | 0.95 | 0.64 | 85.0 | 0.37 | 0.23 |

Table 2 (continued)

| Wt ^a lbs. | ADG lbs. | DM ^b lbs. | Prot % | NE _m Mcal/lb | NE _g Mcal/lb | TDN % | Ca % | P % |
|--|-------------|-------------------------|-----------|----------------------------|----------------------------|----------|---------|--------|
| 1000 | 0.5 | 19.3 | 7.5 | 0.50 | 0.25 | 54.0 | 0.21 | 0.18 |
| | 1.0 | 20.7 | 7.8 | 0.57 | 0.31 | 58.5 | 0.21 | 0.18 |
| | 1.5 | 21.5 | 8.1 | 0.64 | 0.38 | 63.0 | 0.24 | 0.18 |
| | 2.0 | 22.0 | 8.4 | 0.70 | 0.44 | 67.5 | 0.25 | 0.19 |
| | 2.5 | 21.9 | 8.8 | 0.79 | 0.51 | 73.5 | 0.27 | 0.19 |
| | 3.0 | 19.8 | 9.5 | 0.95 | 0.64 | 85.0 | 0.32 | 0.22 |
| Large-frame steer calves & compensating medium-frame yearling steers | | | | | | | | |
| 300 | 0.5 | 8.2 | 9.5 | 0.48 | 0.23 | 52.5 | 0.30 | 0.19 |
| | 1.0 | 8.7 | 11.3 | 0.54 | 0.28 | 56.0 | 0.46 | 0.23 |
| | 1.5 | 9.1 | 12.9 | 0.59 | 0.33 | 59.5 | 0.58 | 0.27 |
| | 2.0 | 9.4 | 14.6 | 0.64 | 0.38 | 63.5 | 0.70 | 0.30 |
| | 2.5 | 9.6 | 16.3 | 0.70 | 0.44 | 67.5 | 0.85 | 0.34 |
| | 3.0 | 9.6 | 18.0 | 0.77 | 0.49 | 72.0 | 0.99 | 0.39 |
| | 3.5 | 9.3 | 20.3 | 0.86 | 0.57 | 78.5 | 1.16 | 0.45 |
| 400 | 0.5 | 10.1 | 8.9 | 0.48 | 0.23 | 52.5 | 0.26 | 0.17 |
| | 1.0 | 10.8 | 10.2 | 0.54 | 0.28 | 56.0 | 0.37 | 0.20 |
| | 1.5 | 11.3 | 11.4 | 0.59 | 0.33 | 59.5 | 0.47 | 0.23 |
| | 2.0 | 11.7 | 12.7 | 0.64 | 0.38 | 63.5 | 0.57 | 0.26 |
| | 2.5 | 11.9 | 13.9 | 0.70 | 0.44 | 67.5 | 0.65 | 0.30 |
| | 3.0 | 11.9 | 15.2 | 0.77 | 0.49 | 72.0 | 0.76 | 0.33 |
| | 3.5 | 11.5 | 16.9 | 0.86 | 0.57 | 78.5 | 0.90 | 0.36 |
| 500 | 0.5 | 12.0 | 8.5 | 0.48 | 0.23 | 52.5 | 0.24 | 0.17 |
| | 1.0 | 12.8 | 9.5 | 0.54 | 0.28 | 56.0 | 0.33 | 0.19 |
| | 1.5 | 13.4 | 10.4 | 0.59 | 0.33 | 59.5 | 0.39 | 0.21 |
| | 2.0 | 13.8 | 11.4 | 0.64 | 0.38 | 63.5 | 0.46 | 0.24 |
| | 2.5 | 14.0 | 12.4 | 0.70 | 0.44 | 67.5 | 0.55 | 0.25 |
| | 3.0 | 14.0 | 13.4 | 0.77 | 0.49 | 72.0 | 0.63 | 0.28 |
| | 3.5 | 13.6 | 14.7 | 0.86 | 0.57 | 78.5 | 0.73 | 0.32 |
| 600 | 0.5 | 13.8 | 8.2 | 0.48 | 0.23 | 52.5 | 0.22 | 0.18 |
| | 1.0 | 14.6 | 9.0 | 0.54 | 0.28 | 56.0 | 0.29 | 0.18 |
| | 1.5 | 15.3 | 9.7 | 0.59 | 0.33 | 59.5 | 0.35 | 0.20 |
| | 2.0 | 15.8 | 10.5 | 0.64 | 0.38 | 63.5 | 0.40 | 0.22 |
| | 2.5 | 16.1 | 11.3 | 0.70 | 0.44 | 67.5 | 0.47 | 0.23 |
| | 3.0 | 16.1 | 12.1 | 0.77 | 0.49 | 72.0 | 0.52 | 0.26 |
| | 3.5 | 15.6 | 13.2 | 0.86 | 0.57 | 78.5 | 0.61 | 0.28 |
| 700 | 0.5 | 15.4 | 7.9 | 0.48 | 0.23 | 52.5 | 0.21 | 0.17 |
| | 1.0 | 16.4 | 8.6 | 0.54 | 0.28 | 56.0 | 0.27 | 0.19 |
| | 1.5 | 17.2 | 9.2 | 0.59 | 0.33 | 59.5 | 0.31 | 0.19 |
| | 2.0 | 17.8 | 9.8 | 0.64 | 0.38 | 63.5 | 0.36 | 0.21 |
| | 2.5 | 18.0 | 10.5 | 0.70 | 0.44 | 67.5 | 0.40 | 0.22 |
| | 3.0 | 18.0 | 11.1 | 0.77 | 0.49 | 72.0 | 0.45 | 0.23 |
| | 3.5 | 17.5 | 12.0 | 0.86 | 0.57 | 78.5 | 0.52 | 0.26 |
| 800 | 0.5 | 17.1 | 7.7 | 0.48 | 0.23 | 52.5 | 0.21 | 0.18 |
| | 1.0 | 18.2 | 8.3 | 0.54 | 0.28 | 56.0 | 0.24 | 0.18 |
| | 1.5 | 19.0 | 8.8 | 0.59 | 0.33 | 59.5 | 0.28 | 0.19 |
| | 2.0 | 19.6 | 9.3 | 0.64 | 0.38 | 63.5 | 0.32 | 0.20 |
| | 2.5 | 19.9 | 9.8 | 0.70 | 0.44 | 67.5 | 0.35 | 0.21 |
| | 3.0 | 19.9 | 10.4 | 0.77 | 0.49 | 72.0 | 0.40 | 0.22 |
| | 3.5 | 19.3 | 11.1 | 0.86 | 0.57 | 78.5 | 0.45 | 0.24 |

Table 2 (continued)

| Wt ^a lbs. | ADG lbs. | DM ^b lbs. | Prot % | NE _m Mcal/lb | NE _g Mcal/lb | TDN % | Ca % | P % |
|-------------------------|-------------|-------------------------|-----------|----------------------------|----------------------------|----------|---------|--------|
| 900 | 0.5 | 18.6 | 7.6 | 0.48 | 0.23 | 52.5 | 0.20 | 0.18 |
| | 1.0 | 19.8 | 8.0 | 0.54 | 0.28 | 56.0 | 0.23 | 0.18 |
| | 1.5 | 20.8 | 8.5 | 0.59 | 0.33 | 59.5 | 0.27 | 0.18 |
| | 2.0 | 21.4 | 8.9 | 0.64 | 0.38 | 63.5 | 0.29 | 0.20 |
| | 2.5 | 21.8 | 9.3 | 0.70 | 0.44 | 67.5 | 0.31 | 0.20 |
| | 3.0 | 21.7 | 9.8 | 0.77 | 0.49 | 72.0 | 0.36 | 0.21 |
| | 3.5 | 21.1 | 10.4 | 0.86 | 0.57 | 78.5 | 0.40 | 0.23 |
| 1000 | 0.5 | 20.2 | 7.5 | 0.48 | 0.23 | 52.5 | 0.20 | 0.17 |
| | 1.0 | 21.5 | 7.8 | 0.54 | 0.28 | 56.0 | 0.23 | 0.17 |
| | 1.5 | 22.5 | 8.2 | 0.59 | 0.33 | 59.5 | 0.25 | 0.18 |
| | 2.0 | 23.2 | 8.6 | 0.64 | 0.38 | 63.5 | 0.27 | 0.18 |
| | 2.5 | 23.6 | 8.9 | 0.70 | 0.44 | 67.5 | 0.29 | 0.19 |
| | 3.0 | 23.6 | 9.3 | 0.77 | 0.49 | 72.0 | 0.32 | 0.20 |
| | 3.5 | 22.8 | 9.8 | 0.86 | 0.57 | 78.5 | 0.35 | 0.21 |
| 1100 | 0.5 | 21.7 | 7.4 | 0.48 | 0.23 | 52.5 | 0.19 | 0.18 |
| | 1.0 | 23.1 | 7.7 | 0.54 | 0.28 | 56.0 | 0.21 | 0.18 |
| | 1.5 | 24.1 | 8.0 | 0.59 | 0.33 | 59.5 | 0.23 | 0.18 |
| | 2.0 | 24.9 | 8.3 | 0.64 | 0.38 | 63.5 | 0.25 | 0.18 |
| | 2.5 | 25.3 | 8.5 | 0.70 | 0.44 | 67.5 | 0.26 | 0.18 |
| | 3.0 | 25.3 | 8.9 | 0.77 | 0.49 | 72.0 | 0.29 | 0.19 |
| | 3.5 | 24.5 | 9.3 | 0.86 | 0.57 | 78.5 | 0.32 | 0.21 |
| Medium-frame bulls | | | | | | | | |
| 300 | 0.5 | 7.8 | 9.7 | 0.49 | 0.24 | 53.5 | 0.31 | 0.20 |
| | 1.0 | 8.3 | 11.6 | 0.56 | 0.30 | 57.5 | 0.48 | 0.24 |
| | 1.5 | 8.6 | 13.4 | 0.62 | 0.35 | 61.5 | 0.62 | 0.28 |
| | 2.0 | 8.8 | 15.2 | 0.68 | 0.41 | 65.5 | 0.75 | 0.33 |
| | 2.5 | 8.9 | 17.0 | 0.74 | 0.47 | 70.0 | 0.92 | 0.37 |
| | 3.0 | 8.7 | 19.3 | 0.84 | 0.54 | 76.5 | 1.09 | 0.43 |
| 400 | 0.5 | 9.6 | 9.0 | 0.49 | 0.24 | 53.5 | 0.28 | 0.18 |
| | 1.0 | 10.3 | 10.4 | 0.56 | 0.30 | 57.5 | 0.39 | 0.21 |
| | 1.5 | 10.7 | 11.8 | 0.62 | 0.35 | 61.5 | 0.49 | 0.25 |
| | 2.0 | 11.0 | 13.1 | 0.68 | 0.41 | 65.5 | 0.60 | 0.28 |
| | 2.5 | 11.1 | 14.4 | 0.74 | 0.47 | 70.0 | 0.70 | 0.32 |
| | 3.0 | 10.8 | 16.1 | 0.84 | 0.54 | 76.5 | 0.84 | 0.37 |
| 500 | 0.5 | 11.4 | 8.6 | 0.49 | 0.24 | 53.5 | 0.25 | 0.17 |
| | 1.0 | 12.1 | 9.7 | 0.56 | 0.30 | 57.5 | 0.35 | 0.20 |
| | 1.5 | 12.7 | 10.7 | 0.62 | 0.35 | 61.5 | 0.42 | 0.23 |
| | 2.0 | 13.0 | 11.7 | 0.68 | 0.41 | 65.5 | 0.49 | 0.25 |
| | 2.5 | 13.1 | 12.8 | 0.74 | 0.47 | 70.0 | 0.59 | 0.27 |
| | 3.0 | 12.8 | 14.1 | 0.84 | 0.54 | 76.5 | 0.69 | 0.31 |
| 600 | 0.5 | 13.1 | 8.3 | 0.49 | 0.24 | 53.5 | 0.24 | 0.19 |
| | 1.0 | 13.9 | 9.2 | 0.56 | 0.30 | 57.5 | 0.30 | 0.19 |
| | 1.5 | 14.5 | 10.0 | 0.62 | 0.35 | 61.5 | 0.36 | 0.21 |
| | 2.0 | 14.9 | 10.8 | 0.68 | 0.41 | 65.5 | 0.43 | 0.24 |
| | 2.5 | 15.0 | 11.6 | 0.74 | 0.47 | 70.0 | 0.50 | 0.25 |
| | 3.0 | 14.7 | 12.7 | 0.84 | 0.54 | 76.5 | 0.57 | 0.29 |
| 700 | 0.5 | 14.7 | 8.0 | 0.49 | 0.24 | 53.5 | 0.23 | 0.18 |
| | 1.0 | 15.6 | 8.8 | 0.56 | 0.30 | 57.5 | 0.28 | 0.20 |
| | 1.5 | 16.3 | 9.4 | 0.62 | 0.35 | 61.5 | 0.32 | 0.20 |
| | 2.0 | 16.7 | 10.1 | 0.68 | 0.41 | 65.5 | 0.38 | 0.22 |
| | 2.5 | 16.8 | 10.8 | 0.74 | 0.47 | 70.0 | 0.43 | 0.24 |
| | 3.0 | 16.5 | 11.7 | 0.84 | 0.54 | 76.5 | 0.49 | 0.25 |

Table 2 (continued)

| Wt ^a lbs. | ADG lbs. | DM ^b lbs. | Prot % | NE _m Mcal/lb | NE _g Mcal/lb | TDN % | Ca % | P % |
|--|-------------|-------------------------|-----------|----------------------------|----------------------------|----------|---------|--------|
| 800 | 0.5 | 16.2 | 7.8 | 0.49 | 0.24 | 53.5 | 0.22 | 0.19 |
| | 1.0 | 17.3 | 8.4 | 0.56 | 0.30 | 57.5 | 0.25 | 0.19 |
| | 1.5 | 18.0 | 9.0 | 0.62 | 0.35 | 61.5 | 0.29 | 0.20 |
| | 2.0 | 18.5 | 9.5 | 0.68 | 0.41 | 65.5 | 0.33 | 0.21 |
| | 2.5 | 18.6 | 10.1 | 0.74 | 0.47 | 70.0 | 0.38 | 0.23 |
| | 3.0 | 18.2 | 10.8 | 0.84 | 0.54 | 76.5 | 0.44 | 0.24 |
| 900 | 0.5 | 17.7 | 7.7 | 0.49 | 0.24 | 53.5 | 0.21 | 0.19 |
| | 1.0 | 18.9 | 8.2 | 0.56 | 0.30 | 57.5 | 0.25 | 0.19 |
| | 1.5 | 19.7 | 8.6 | 0.62 | 0.35 | 61.5 | 0.28 | 0.19 |
| | 2.0 | 20.2 | 9.1 | 0.68 | 0.41 | 65.5 | 0.31 | 0.21 |
| | 2.5 | 20.3 | 9.6 | 0.74 | 0.47 | 70.0 | 0.34 | 0.22 |
| | 3.0 | 19.9 | 10.2 | 0.84 | 0.54 | 76.5 | 0.39 | 0.23 |
| 1000 | 0.5 | 19.2 | 7.5 | 0.49 | 0.24 | 53.5 | 0.21 | 0.18 |
| | 1.0 | 20.4 | 8.0 | 0.56 | 0.30 | 57.5 | 0.24 | 0.18 |
| | 1.5 | 21.3 | 8.4 | 0.62 | 0.35 | 61.5 | 0.26 | 0.19 |
| | 2.0 | 21.8 | 8.7 | 0.68 | 0.41 | 65.5 | 0.28 | 0.19 |
| | 2.5 | 22.0 | 9.1 | 0.74 | 0.47 | 70.0 | 0.31 | 0.20 |
| | 3.0 | 21.5 | 9.6 | 0.84 | 0.54 | 76.5 | 0.35 | 0.22 |
| 1100 | 0.5 | 20.6 | 7.4 | 0.49 | 0.24 | 53.5 | 0.20 | 0.19 |
| | 1.0 | 21.9 | 7.8 | 0.56 | 0.30 | 57.5 | 0.22 | 0.19 |
| | 1.5 | 22.9 | 8.1 | 0.62 | 0.35 | 61.5 | 0.24 | 0.19 |
| | 2.0 | 23.4 | 8.4 | 0.68 | 0.41 | 65.5 | 0.26 | 0.19 |
| | 2.5 | 23.6 | 8.7 | 0.74 | 0.47 | 70.0 | 0.28 | 0.20 |
| | 3.0 | 23.1 | 9.2 | 0.84 | 0.54 | 76.5 | 0.32 | 0.21 |
| Large-frame bull calves & compensating large-frame yearling steers | | | | | | | | |
| 300 | 0.5 | 7.9 | 9.7 | 0.48 | 0.23 | 52.5 | 0.31 | 0.20 |
| | 1.0 | 8.4 | 11.7 | 0.54 | 0.28 | 56.0 | 0.47 | 0.24 |
| | 1.5 | 8.8 | 13.5 | 0.59 | 0.33 | 59.5 | 0.63 | 0.28 |
| | 2.0 | 9.0 | 15.1 | 0.63 | 0.37 | 62.5 | 0.76 | 0.32 |
| | 2.5 | 9.2 | 17.0 | 0.69 | 0.42 | 66.5 | 0.91 | 0.36 |
| | 3.0 | 9.2 | 18.8 | 0.75 | 0.47 | 70.5 | 1.08 | 0.43 |
| | 3.5 | 9.1 | 20.9 | 0.82 | 0.53 | 75.5 | 1.24 | 0.48 |
| | 4.0 | 8.2 | 24.7 | 0.96 | 0.66 | 86.0 | 1.53 | 0.59 |
| 400 | 0.5 | 9.8 | 9.0 | 0.48 | 0.23 | 52.5 | 0.27 | 0.18 |
| | 1.0 | 10.4 | 10.5 | 0.54 | 0.28 | 56.0 | 0.40 | 0.21 |
| | 1.5 | 10.9 | 11.9 | 0.59 | 0.33 | 59.5 | 0.51 | 0.24 |
| | 2.0 | 11.2 | 13.1 | 0.63 | 0.37 | 62.5 | 0.61 | 0.28 |
| | 2.5 | 11.4 | 14.5 | 0.69 | 0.42 | 66.5 | 0.72 | 0.31 |
| | 3.0 | 11.5 | 15.9 | 0.75 | 0.47 | 70.5 | 0.82 | 0.35 |
| | 3.5 | 11.3 | 17.5 | 0.82 | 0.53 | 75.5 | 0.96 | 0.39 |
| | 4.0 | 10.2 | 20.3 | 0.96 | 0.66 | 86.0 | 1.19 | 0.48 |
| 500 | 0.5 | 11.6 | 8.6 | 0.48 | 0.23 | 52.5 | 0.25 | 0.19 |
| | 1.0 | 12.3 | 9.8 | 0.54 | 0.28 | 56.0 | 0.36 | 0.21 |
| | 1.5 | 12.9 | 10.9 | 0.59 | 0.33 | 59.5 | 0.43 | 0.22 |
| | 2.0 | 13.2 | 11.8 | 0.63 | 0.37 | 62.5 | 0.52 | 0.25 |
| | 2.5 | 13.5 | 12.9 | 0.69 | 0.42 | 66.5 | 0.59 | 0.28 |
| | 3.0 | 13.6 | 14.0 | 0.75 | 0.47 | 70.5 | 0.68 | 0.31 |
| | 3.5 | 13.4 | 15.3 | 0.82 | 0.53 | 75.5 | 0.77 | 0.35 |
| | 4.0 | 12.0 | 17.5 | 0.96 | 0.66 | 86.0 | 0.97 | 0.40 |

Table 2 (continued)

| Wt ^a lbs. | ADG lbs. | DM ^b lbs. | Prot % | NE _m Mcal/lb | NE _g Mcal/lb | TDN % | Ca % | P % |
|-------------------------|-------------|-------------------------|-----------|----------------------------|----------------------------|----------|---------|--------|
| 600 | 0.5 | 13.3 | 8.3 | 0.48 | 0.23 | 52.5 | 0.23 | 0.18 |
| | 1.0 | 14.1 | 9.2 | 0.54 | 0.28 | 56.0 | 0.31 | 0.20 |
| | 1.5 | 14.8 | 10.1 | 0.59 | 0.33 | 59.5 | 0.37 | 0.21 |
| | 2.0 | 15.2 | 10.9 | 0.63 | 0.37 | 62.5 | 0.44 | 0.23 |
| | 2.5 | 15.5 | 11.8 | 0.69 | 0.42 | 66.5 | 0.51 | 0.26 |
| | 3.0 | 15.5 | 12.7 | 0.75 | 0.47 | 70.5 | 0.58 | 0.27 |
| | 3.5 | 15.3 | 13.7 | 0.82 | 0.53 | 75.5 | 0.66 | 0.30 |
| | 4.0 | 13.8 | 15.6 | 0.96 | 0.66 | 86.0 | 0.81 | 0.37 |
| 700 | 0.5 | 14.9 | 8.0 | 0.48 | 0.23 | 52.5 | 0.22 | 0.18 |
| | 1.0 | 15.9 | 8.8 | 0.54 | 0.28 | 56.0 | 0.29 | 0.19 |
| | 1.5 | 16.6 | 9.6 | 0.59 | 0.33 | 59.5 | 0.35 | 0.21 |
| | 2.0 | 17.0 | 10.2 | 0.63 | 0.37 | 62.5 | 0.39 | 0.22 |
| | 2.5 | 17.4 | 11.0 | 0.69 | 0.42 | 66.5 | 0.44 | 0.24 |
| | 3.0 | 17.5 | 11.7 | 0.75 | 0.47 | 70.5 | 0.50 | 0.25 |
| | 3.5 | 17.2 | 12.5 | 0.82 | 0.53 | 75.5 | 0.56 | 0.28 |
| | 4.0 | 15.5 | 14.1 | 0.96 | 0.66 | 86.0 | 0.70 | 0.33 |
| 800 | 0.5 | 16.5 | 7.9 | 0.48 | 0.23 | 52.5 | 0.21 | 0.19 |
| | 1.0 | 17.5 | 8.5 | 0.54 | 0.28 | 56.0 | 0.26 | 0.19 |
| | 1.5 | 18.3 | 9.1 | 0.59 | 0.33 | 59.5 | 0.31 | 0.20 |
| | 2.0 | 18.8 | 9.7 | 0.63 | 0.37 | 62.5 | 0.35 | 0.21 |
| | 2.5 | 19.2 | 10.3 | 0.69 | 0.42 | 66.5 | 0.40 | 0.23 |
| | 3.0 | 19.3 | 10.9 | 0.75 | 0.47 | 70.5 | 0.45 | 0.24 |
| | 3.5 | 19.0 | 11.6 | 0.82 | 0.53 | 75.5 | 0.50 | 0.26 |
| | 4.0 | 17.1 | 13.0 | 0.96 | 0.66 | 86.0 | 0.61 | 0.31 |
| 900 | 0.5 | 18.0 | 7.7 | 0.48 | 0.23 | 52.5 | 0.22 | 0.18 |
| | 1.0 | 19.2 | 8.3 | 0.54 | 0.28 | 56.0 | 0.25 | 0.18 |
| | 1.5 | 20.0 | 8.8 | 0.59 | 0.33 | 59.5 | 0.29 | 0.20 |
| | 2.0 | 20.6 | 9.2 | 0.63 | 0.37 | 62.5 | 0.32 | 0.20 |
| | 2.5 | 21.0 | 9.8 | 0.69 | 0.42 | 66.5 | 0.36 | 0.21 |
| | 3.0 | 21.1 | 10.3 | 0.75 | 0.47 | 70.5 | 0.40 | 0.23 |
| | 3.5 | 20.8 | 10.9 | 0.82 | 0.53 | 75.5 | 0.45 | 0.24 |
| | 4.0 | 18.7 | 12.1 | 0.96 | 0.66 | 86.0 | 0.53 | 0.28 |
| 1000 | 0.5 | 19.5 | 7.6 | 0.48 | 0.23 | 52.5 | 0.21 | 0.18 |
| | 1.0 | 20.7 | 8.1 | 0.54 | 0.28 | 56.0 | 0.25 | 0.19 |
| | 1.5 | 21.7 | 8.5 | 0.59 | 0.33 | 59.5 | 0.27 | 0.19 |
| | 2.0 | 22.3 | 8.9 | 0.63 | 0.37 | 62.5 | 0.30 | 0.20 |
| | 2.5 | 22.7 | 9.3 | 0.69 | 0.42 | 66.5 | 0.33 | 0.20 |
| | 3.0 | 22.8 | 9.7 | 0.75 | 0.47 | 70.5 | 0.36 | 0.21 |
| | 3.5 | 22.5 | 10.3 | 0.82 | 0.53 | 75.5 | 0.40 | 0.24 |
| | 4.0 | 20.2 | 11.3 | 0.96 | 0.66 | 86.0 | 0.48 | 0.27 |
| 1100 | 0.5 | 20.9 | 7.5 | 0.48 | 0.23 | 52.5 | 0.21 | 0.19 |
| | 1.0 | 22.3 | 7.9 | 0.54 | 0.28 | 56.0 | 0.23 | 0.19 |
| | 1.5 | 23.3 | 8.3 | 0.59 | 0.33 | 59.5 | 0.26 | 0.19 |
| | 2.0 | 23.9 | 8.6 | 0.63 | 0.37 | 62.5 | 0.28 | 0.19 |
| | 2.5 | 24.2 | 9.0 | 0.69 | 0.42 | 66.5 | 0.30 | 0.20 |
| | 3.0 | 24.5 | 9.3 | 0.75 | 0.47 | 70.5 | 0.32 | 0.21 |
| | 3.5 | 24.1 | 9.8 | 0.82 | 0.53 | 75.5 | 0.36 | 0.22 |
| | 4.0 | 21.7 | 10.7 | 0.96 | 0.66 | 86.0 | 0.43 | 0.25 |

Table 2 (continued)

| Wt ^a lbs. | ADG lbs. | DM ^b lbs. | Prot % | NE _m Mcal/lb | NE _g Mcal/lb | TDN % | Ca % | P % |
|--|-------------|-------------------------|-----------|----------------------------|----------------------------|----------|---------|--------|
| Medium-frame heifer calves | | | | | | | | |
| 300 | 0.5 | 7.5 | 9.6 | 0.54 | 0.28 | 56.0 | 0.29 | 0.21 |
| | 1.0 | 8.0 | 11.4 | 0.63 | 0.36 | 62.0 | 0.44 | 0.22 |
| | 1.5 | 8.2 | 13.1 | 0.72 | 0.44 | 68.5 | 0.59 | 0.27 |
| | 2.0 | 8.0 | 15.1 | 0.84 | 0.55 | 77.0 | 0.74 | 0.33 |
| 400 | 0.5 | 9.3 | 8.9 | 0.54 | 0.28 | 56.0 | 0.26 | 0.19 |
| | 1.0 | 9.9 | 10.2 | 0.63 | 0.36 | 62.0 | 0.36 | 0.20 |
| | 1.5 | 10.2 | 11.4 | 0.72 | 0.44 | 68.5 | 0.45 | 0.24 |
| | 2.0 | 10.0 | 12.9 | 0.84 | 0.55 | 77.0 | 0.57 | 0.29 |
| 500 | 0.5 | 11.0 | 8.5 | 0.54 | 0.28 | 56.0 | 0.24 | 0.18 |
| | 1.0 | 11.8 | 9.4 | 0.63 | 0.36 | 62.0 | 0.30 | 0.21 |
| | 1.5 | 12.1 | 10.3 | 0.72 | 0.44 | 68.5 | 0.38 | 0.22 |
| | 2.0 | 11.8 | 11.4 | 0.84 | 0.55 | 77.0 | 0.45 | 0.24 |
| 600 | 0.5 | 12.6 | 8.1 | 0.54 | 0.28 | 56.0 | 0.23 | 0.18 |
| | 1.0 | 13.5 | 8.8 | 0.63 | 0.36 | 62.0 | 0.28 | 0.20 |
| | 1.5 | 13.8 | 9.5 | 0.72 | 0.44 | 68.5 | 0.32 | 0.21 |
| | 2.0 | 13.5 | 10.4 | 0.84 | 0.55 | 77.0 | 0.38 | 0.23 |
| 700 | 0.5 | 14.1 | 7.9 | 0.54 | 0.28 | 56.0 | 0.22 | 0.19 |
| | 1.0 | 15.1 | 8.4 | 0.63 | 0.36 | 62.0 | 0.25 | 0.19 |
| | 1.5 | 15.5 | 9.0 | 0.72 | 0.44 | 68.5 | 0.28 | 0.20 |
| | 2.0 | 15.2 | 9.6 | 0.84 | 0.55 | 77.0 | 0.32 | 0.22 |
| 800 | 0.5 | 15.6 | 7.7 | 0.54 | 0.28 | 56.0 | 0.21 | 0.18 |
| | 1.0 | 16.7 | 8.1 | 0.63 | 0.36 | 62.0 | 0.22 | 0.18 |
| | 1.5 | 17.2 | 8.5 | 0.72 | 0.44 | 68.5 | 0.24 | 0.19 |
| | 2.0 | 16.8 | 9.0 | 0.84 | 0.55 | 77.0 | 0.28 | 0.20 |
| 900 | 0.5 | 17.1 | 7.5 | 0.54 | 0.28 | 56.0 | 0.21 | 0.18 |
| | 1.0 | 18.3 | 7.8 | 0.63 | 0.36 | 62.0 | 0.22 | 0.18 |
| | 1.5 | 18.8 | 8.1 | 0.72 | 0.44 | 68.5 | 0.22 | 0.19 |
| | 2.0 | 18.3 | 8.5 | 0.84 | 0.55 | 77.0 | 0.25 | 0.19 |
| 1000 | 0.5 | 18.5 | 7.4 | 0.54 | 0.28 | 56.0 | 0.20 | 0.19 |
| | 1.0 | 19.8 | 7.6 | 0.63 | 0.36 | 62.0 | 0.20 | 0.18 |
| | 1.5 | 20.3 | 7.8 | 0.72 | 0.44 | 68.5 | 0.21 | 0.18 |
| | 2.0 | 19.8 | 8.1 | 0.84 | 0.55 | 77.0 | 0.22 | 0.19 |
| Large-frame heifer calves and compensating medium-frame yearling heifers | | | | | | | | |
| 300 | 0.5 | 7.8 | 9.5 | 0.50 | 0.25 | 54.0 | 0.31 | 0.20 |
| | 1.0 | 8.4 | 11.3 | 0.58 | 0.32 | 59.0 | 0.45 | 0.24 |
| | 1.5 | 8.8 | 13.0 | 0.65 | 0.39 | 64.0 | 0.58 | 0.25 |
| | 2.0 | 8.9 | 14.6 | 0.74 | 0.46 | 69.5 | 0.69 | 0.30 |
| | 2.5 | 8.7 | 16.7 | 0.84 | 0.55 | 77.0 | 0.86 | 0.35 |
| 400 | 0.5 | 9.7 | 8.9 | 0.50 | 0.25 | 54.0 | 0.27 | 0.18 |
| | 1.0 | 10.5 | 10.1 | 0.58 | 0.32 | 59.0 | 0.36 | 0.21 |
| | 1.5 | 10.9 | 11.3 | 0.65 | 0.39 | 64.0 | 0.45 | 0.22 |
| | 2.0 | 11.1 | 12.6 | 0.74 | 0.46 | 69.5 | 0.54 | 0.26 |
| | 2.5 | 10.8 | 14.1 | 0.84 | 0.55 | 77.0 | 0.65 | 0.31 |

Table 2 (continued)

| Wt ^a lbs. | ADG lbs. | DM ^b lbs. | Prot % | NE _m Mcal/lb | NE _g Mcal/lb | TDN % | Ca % | P % |
|-------------------------|-------------|-------------------------|-----------|----------------------------|----------------------------|----------|---------|--------|
| 500 | 0.5 | 11.5 | 8.4 | 0.50 | 0.25 | 54.0 | 0.23 | 0.17 |
| | 1.0 | 12.4 | 9.4 | 0.58 | 0.32 | 59.0 | 0.30 | 0.20 |
| | 1.5 | 12.9 | 10.3 | 0.65 | 0.39 | 64.0 | 0.38 | 0.20 |
| | 2.0 | 13.1 | 11.2 | 0.74 | 0.46 | 69.5 | 0.44 | 0.24 |
| | 2.5 | 12.8 | 12.4 | 0.84 | 0.55 | 77.0 | 0.53 | 0.26 |
| 600 | 0.5 | 13.2 | 8.1 | 0.50 | 0.25 | 54.0 | 0.22 | 0.18 |
| | 1.0 | 14.1 | 8.9 | 0.58 | 0.32 | 59.0 | 0.28 | 0.19 |
| | 1.5 | 14.8 | 9.6 | 0.65 | 0.39 | 64.0 | 0.33 | 0.19 |
| | 2.0 | 15.0 | 10.3 | 0.74 | 0.46 | 69.5 | 0.38 | 0.22 |
| | 2.5 | 14.6 | 11.2 | 0.84 | 0.55 | 77.0 | 0.44 | 0.24 |
| 700 | 0.5 | 14.8 | 7.9 | 0.50 | 0.25 | 54.0 | 0.21 | 0.18 |
| | 1.0 | 15.9 | 8.5 | 0.58 | 0.32 | 59.0 | 0.25 | 0.18 |
| | 1.5 | 16.6 | 9.0 | 0.65 | 0.39 | 64.0 | 0.29 | 0.19 |
| | 2.0 | 16.8 | 9.6 | 0.74 | 0.46 | 69.5 | 0.33 | 0.20 |
| | 2.5 | 16.4 | 10.3 | 0.84 | 0.55 | 77.0 | 0.38 | 0.22 |
| 800 | 0.5 | 16.4 | 7.7 | 0.50 | 0.25 | 54.0 | 0.20 | 0.17 |
| | 1.0 | 17.6 | 8.2 | 0.58 | 0.32 | 59.0 | 0.24 | 0.18 |
| | 1.5 | 18.3 | 8.6 | 0.65 | 0.39 | 64.0 | 0.25 | 0.18 |
| | 2.0 | 18.6 | 9.0 | 0.74 | 0.46 | 69.5 | 0.28 | 0.19 |
| | 2.5 | 18.1 | 9.6 | 0.84 | 0.55 | 77.0 | 0.33 | 0.21 |
| 900 | 0.5 | 17.8 | 7.5 | 0.50 | 0.25 | 54.0 | 0.20 | 0.18 |
| | 1.0 | 19.2 | 7.9 | 0.58 | 0.32 | 59.0 | 0.22 | 0.18 |
| | 1.5 | 20.0 | 8.2 | 0.65 | 0.39 | 64.0 | 0.23 | 0.18 |
| | 2.0 | 20.3 | 8.6 | 0.74 | 0.46 | 69.5 | 0.26 | 0.18 |
| | 2.5 | 19.8 | 9.0 | 0.84 | 0.55 | 77.0 | 0.29 | 0.20 |
| 1000 | 0.5 | 19.3 | 7.4 | 0.50 | 0.25 | 54.0 | 0.19 | 0.18 |
| | 1.0 | 20.8 | 7.7 | 0.58 | 0.32 | 59.0 | 0.21 | 0.18 |
| | 1.5 | 21.7 | 8.0 | 0.65 | 0.39 | 64.0 | 0.21 | 0.18 |
| | 2.0 | 22.0 | 8.2 | 0.74 | 0.46 | 69.5 | 0.23 | 0.18 |
| | 2.5 | 21.5 | 8.6 | 0.84 | 0.55 | 77.0 | 0.25 | 0.18 |
| 1100 | 0.5 | 20.8 | 7.3 | 0.50 | 0.25 | 54.0 | 0.19 | 0.18 |
| | 1.0 | 22.3 | 7.5 | 0.58 | 0.32 | 59.0 | 0.20 | 0.18 |
| | 1.5 | 23.3 | 7.7 | 0.65 | 0.39 | 64.0 | 0.20 | 0.18 |
| | 2.0 | 23.6 | 7.9 | 0.74 | 0.46 | 69.5 | 0.21 | 0.18 |
| | 2.5 | 23.1 | 8.2 | 0.84 | 0.55 | 77.0 | 0.22 | 0.18 |

^aAverage weight for a feeding period

^bVitamin A requirements are 1000 IU per pound of diet

■ Issued in furtherance of Cooperative Extension Work Acts of May 8 and June 30, 1914 in cooperation with the United States Department of Agriculture. John W. Oren, Director, Cooperative Extension Service, University of Missouri and Lincoln University, Columbia, Missouri 65211. ■ An equal opportunity institution.