

## Estimating Feed Costs for Females

Feedlot efficiency is 40% inheritable according to genetic finding.

The bull contributes 50% of his efficiency to an animal and the female 50%.

A full feed for a feedlot animal is approximately 20# DMI (dry matter intake)

A production female DMI is estimated at an average of 14# DMI 365 days per year.

14# is 70% of 20#, which translates into a female using 70% of feed needed for a feedlot animal.

40% (Feed Efficiency factor) x 50% (bull influence) x 70% (pasture feed intake) = 14% cost impact/hd

W124's RFI is -7.92, which means he ate 7.92# of feed less per day than would be expected by an animal his size and gain.

7.92# (W124 feed savings/day) x 14% (cost impact for a pasture animal) = 1.11# less DMI per day for an animal/cow sired by W124 than expected on average.

1.11# DMI equals an equivalent of 1.1# of corn value with 1# corn = 1# DM.

1.11# per day x 365 days per year = 405# of DM feed savings per year per cow.

When figured on DM basis, there is not much difference in feed stuffs. Good quality hay can be 12 cents per DM pound. Average hay can be 8 cents per pound. 405# feed savings/yr/cow x average herd life of 6 yrs/cow = 2,430# lifetime feed savings/cow. 2,430# per cow x 10 heifers kept per year for 3 years equals a potential of 72,900# of feed saved for those 30 cows for their lifetimes. \$4.00 corn costs 7.14 cents per pound. 72,900# x 7.14 = \$5,205 feed savings. \$6.00 corn costs 10.7 cents per pound and increases projected savings to \$7,800 saved on 30 cows sired by W124 or any other -7.92RFI bull. 72,900# x .12 for good quality hay = \$8,748. Every herd is managed differently, so see the costs below.

For our chart we did not use the full dollar figures for corn equivalent feed cost on pasture. For the low end yearly cow feed cost we used \$365/yr. That was the costs of 6 big bales of hay at \$40@, summer pasture cost of \$100 for 6 months (probably very low considering land prices), \$25 for yearly supplement, salt and mineral. At the high end we used \$50 per bale hay cost (maybe still low?), \$140 for 6 month summer pasture cost and a yearly supplement cost of \$42, totaling \$482.

W124 has a -7.92 RFI which saves 1.1# of feed per day (-7.92 x .14 = -1.1#). That saves about 405#.

Bull A has a -2.0 RFI which saves .28# per day (-2.0 x .14 = -.28#). That saves about 102# of feed.

Bull B has a +1.0 RFI which adds .14# per day (1.0 x .14 = +.14#). That adds about 51# of feed/yr.

Yearly Feed Cost/cow:	\$365(\$4.00/bu corn)	\$379(\$5.00)	\$422(\$6.00)	\$440(\$6.75)	\$482(\$7.25)
<u>W124's cow feed cost:</u>	\$336	\$343	\$379	\$391	\$430
<u>Bull A's cow feed cost:</u>	358	370	411	428	469
<u>Average cow feed cost:</u>	365	379	422	440	482
<u>Bull B's cow feed cost:</u>	369	384	427	446	489

Pennies per day add up to \$1,000's over 6 years. At the low end of feed cost, saving 30 daughters for an average of 6 yrs. shows W124 with almost \$6,000 savings over Bull B using \$33/yr x 30 cows x 6 yrs.

At the high end, a \$59 advantage per yr. in feed costs for W124 sired cows compared to Bull B would result in \$59 x 30 cows (10 per year for 3 years) x 6 years = **\$10, 620 of feed cost savings!! - all on only 10 heifers per year.**