

ASSUMPTIONS:

Herd size: 1,500 herd size

Lameness: 30%

Routine trims per cow, per year: 2

Additional trims per lame cow: 1.5

1,500 cows x 2 trims per year = 3,000 routine trims per year

450 lame cows x 1.5 trims per year = 675 lame trims

3,675 total trims per year

COST ANALYSIS:

1. Outsource professional hoof trimmer

\$75,243.75 Total professional hoof trimmer cost

\$51,450.00 Total no. of trimmings by hoof trimmer

3,675 No. of trims

\$14.00 Cost per trim

\$23,793.75 Lame cows cost

506.25 No. of treatments

\$47.00 Cost per treatment

2. Combination of in-house and professional trimming services

\$62,692.81 Total lame cows only scenario

\$42,000.00 Total no. of trimmings by hoof trimmer

3000 No. of trims

\$14.00 Cost per trim

\$2,531.25 Lame cows treatment cost

506.25 No. of treatments

\$5.00 Cost per treatment

\$4,315.68 Lame cow labor cost

\$19.20 Labor cost per hour

224.775 Total lame cow time

0.333 Hour time per cow

675 Total lame cows

\$1,358.68 Chute payment

\$10,000 Cost of chute

6.00% Interest rate

10 Expected life of chute (years)

\$7,987.20 Yearly detection cost

8 Time per week

\$19.20 Total wage cost

\$4,500 Hoof trimming training cost

\$3,000 Initial training cost

\$1,500 Yearly continued education

3. All in-house hoof trimming with three scenarios

A. No change in lameness

\$35,729.51

\$8,640 Routine trim labor cost

\$19.20 Labor cost per hour

450 Total routine trim time

0.15 hour time per cow

3000 Total routine trims

\$3,000 Routine trim supply cost

\$1.00 Cost per cow

3000 Total routine trims

\$2,531.25 Lame cows treatment cost

506.25 No. of treatments

\$5.00 Cost per treatment

\$4,315.68 Lame cow labor cost

\$19.20 Labor cost per hour

224.775 Total lame cow time

0.333 Hour time per cow

675 Total lame cows

\$4,755.38 Chute payment

\$35,000 Cost of chute

6.00% Interest rate

10 Expected life of chute (years)

\$7,987.20 Detection cost

8 Time per week

\$19.20 Total wage cost

\$4,500 Hoof trimmer training cost

\$3,000 Initial training cost

\$1,500 Yearly continued education

B. 50 percent lameness reduction

-\$12,693.96 (This represents a savings resulting from fewer lame cows and associated treatment costs and losses)

\$8,640 Routine trim labor cost

\$19.20 Labor cost per hour

450 Total routine trim time

0.15 hour time per cow

3000 Total routine trims

\$3,000.00 Routine trim supply cost

\$1.00 Cost per cow

3000 Total routine trims

\$1,265.63 Lame cows treatment cost

253.125 No. of treatments

\$5.00 Cost per treatment

\$2,157.84 Lame cow labor cost

\$19.20 Labor cost per hour

112.3875 Total lame cow time

0.333 Hour time per cow

337.5 New no. of lame trims

50% reduction in lame cows

-\$45,000 Reduction in lame cost

225 No. of case reduced

\$200 Cost per case of lameness

\$4,755.38 Chute payment

\$35,000 Cost of chute

6.00% Interest rate

10 Expected life of chute (years)

\$7,987.20 Detection cost

8 Time per week

\$19.20 Total wage cost

\$4,500 Hoof trimmer training cost

\$3,000 Initial training cost

\$1,500 Yearly continued education

C. 50 percent lameness increase

\$84,152.90

\$8,640.00 Routine trim labor cost

\$19.20 Labor cost per hour

450 Total routine trim time

0.15 hour time per cow

3000 Total routine trims

\$3,000 Routine trim supply cost

\$1.00 Cost per cow

3000 Total routine trims

\$3,796.85 Lame cows treatment cost

759.37 No. of treatments

\$5.00 Cost per treatment

\$6,473.47 Lame cow labor cost

\$19.20 Labor cost per hour

337.16 Total lame cow time

0.333 Hour time per cow

1,012.5 New no. of lame trims

50% reduction in lame cows

\$45,000 Increase in lame cost

225 No. of case increased

\$200 Cost per case of lameness

\$4,755.38 Chute payment

\$35,000 Cost of chute

6.00% Interest rate

10 Expected life of chute (years)

\$7,987.20 Detection cost

8 Time per week

\$19.20 Total wage cost

\$4,500 Hoof trimmer training cost

\$3,000 Initial training cost

\$1,500 Yearly continued education