

MULTI-FUEL BIOMASS BOILERS

ARE KEY TO MIDWESTERN

BIOMASS MARKETS



GREEN FLAME ENERGY

FIELD TO FLAME BIOMASS SERVICES



GREEN FLAME ENERGY



HARVESTING IS WITH LARGE EFFICIENT EXISTING EQUIPMENT



DENSITY OF HARVESTED MxG

Chopped 130 kg/m^3

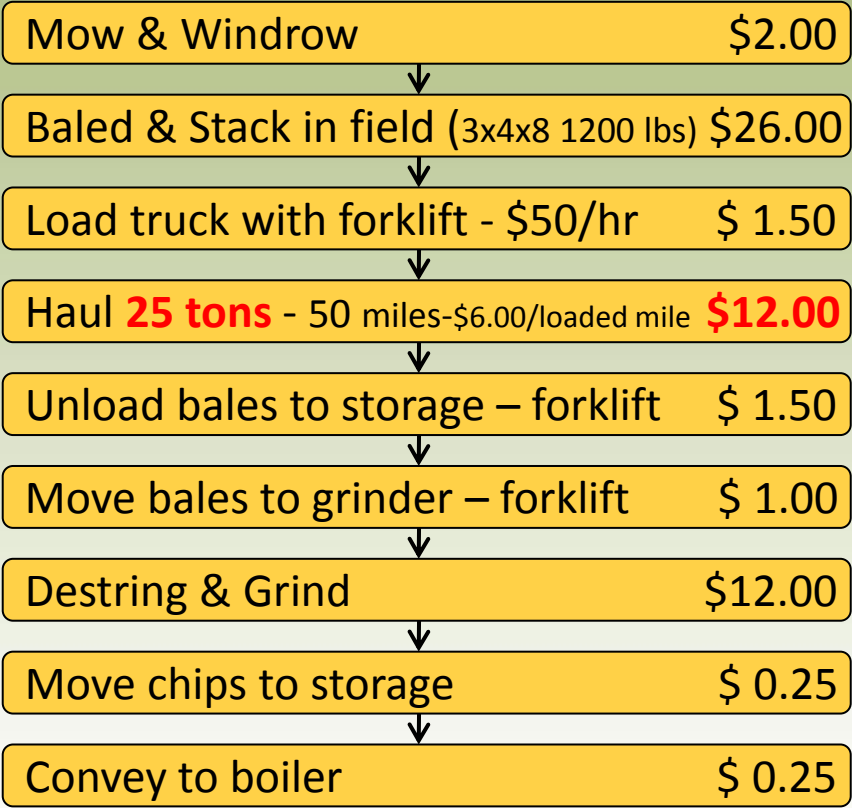
Baled $170\text{-}200 \text{ kg/m}^3$

STORAGE IN THE FIELD



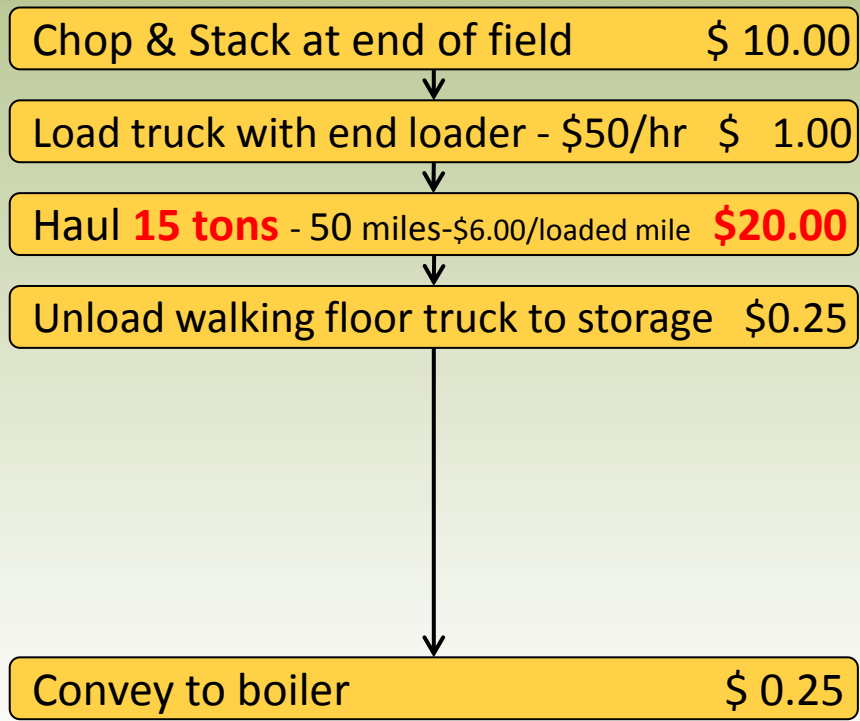
COST TO MOVE ONE TON OF DRY MISCANTHUS FROM STANDING CROP TO FLAME - BALES vs CHIPS

Large Square Baler



Total Cost for Fuel Chips \$56.50

Silage Chopper

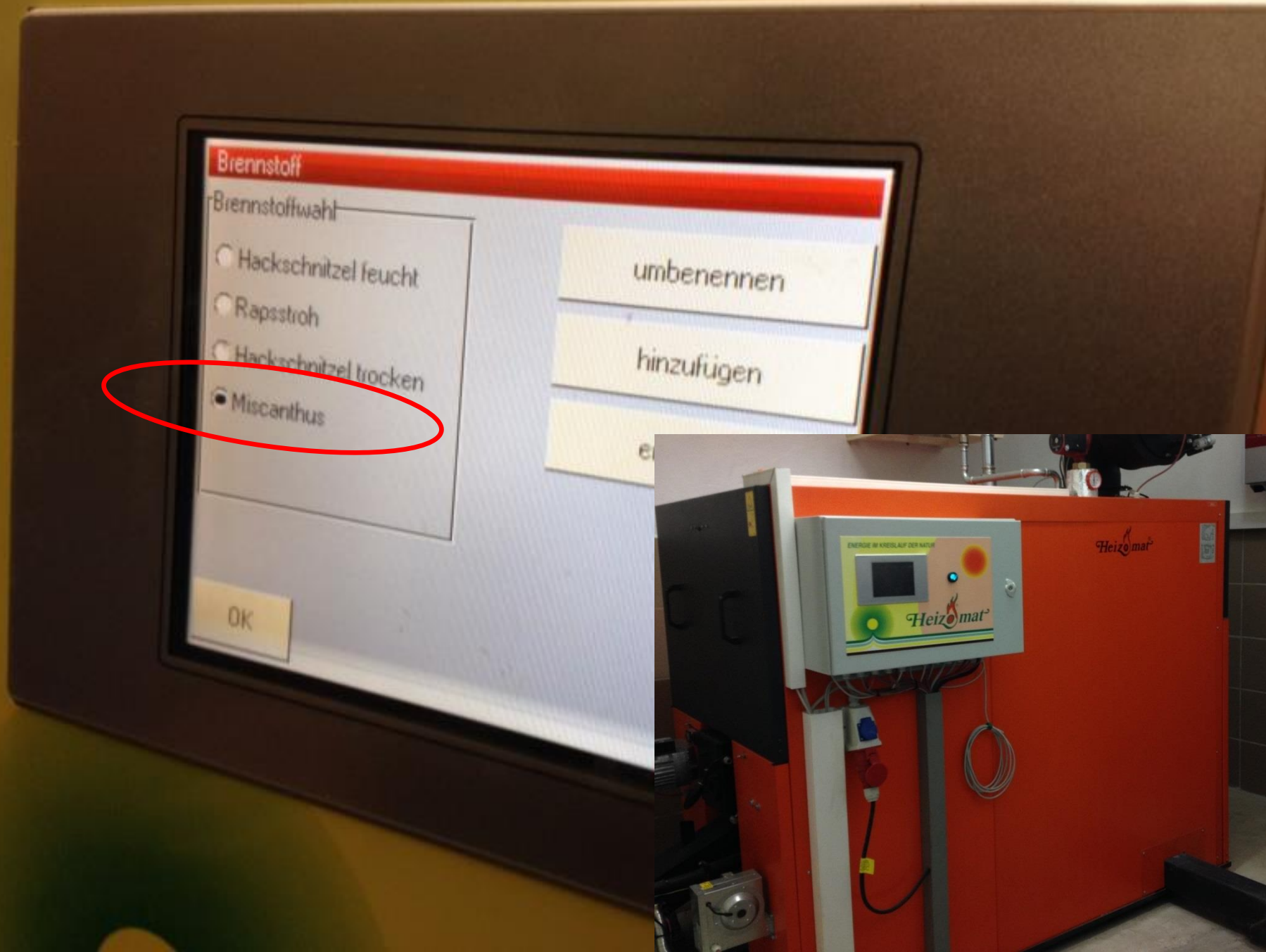


Total Cost for Fuel Chips \$31.50

Pelletizing would add \$20-\$30 a ton to either method.



Costs based on Iowa State University's 2014 Iowa Farm Custom Rate Survey and actual experience at Rund Farms - Green Flame Energy



1 dry ton of Mxg = 170 gals of LP Gas
\$85 \$340



EXTENDING THE CRP FILTER STRIP AND SQUARING OFF THE CORN FIELD

