

Fuel Required for Field Operations

The table below contains estimates of the average quantity of diesel fuel required for field operations.

Fuel requirements for tillage machines were calculated for a central Iowa loam soil.

Engine efficiencies increase over time. Older tractors manufactured before 1990 or those in poor repair may use 10 percent or more additional fuel.

The values for row-crop operations were calculated for 30-inch rows. They should be adjusted for other row widths.

Table 1. Approximate fuel required for field operations, in gallons per acre.

Table with 2 columns: Field operation and Fuel type Diesel. Rows include Fertilization, Tillage, and various specific operations with their respective fuel requirements.

Table continued on page 2

Table 1. Approximate fuel required for field operations, in gallons per acre. (cont.)

Field operation	<u>Fuel type</u> Diesel
Planting (30-inch rows)	
Planter, seed only, tilled seedbed	0.40
Planter with fertilizer and pesticide attachments, tilled seedbed	0.55
Till-planter	0.55
No-till planter	0.45
Grain drill	0.30
Broadcast seeder	0.15
Air drill	0.70
Weed control (30-inch rows)	
Sprayer, trailer type	0.10
Rotary hoe	0.20
Row crop cultivator	0.40
Harvesting hay	
Mower	0.30
Mower-conditioner, PTO	0.55
Self-propelled windrower	0.45
Rake	0.25
Baler	0.40
Forage harvester	
Green forage	0.85
Haylage	1.15
Corn silage	3.25
High-moisture ground ear corn	1.70
Forage blower	
Green forage	0.30
Haylage	0.25
Corn silage	1.25
High-moisture ground ear corn	1.70
Combine	
Combine, soybeans	1.00
Combine, corn	1.45
Hauling, field plus 1/2 mile on gravel road	
Green forage	0.30
Haylage	0.20
Corn silage	1.25
Corn grain	0.20
Soybeans	0.08
Hauling, add following values to those above for each additional mile on gravel road	
Green forage	0.15
Haylage	0.20
Corn silage	0.80
Corn grain	0.15
Soybeans	0.05