

	<b>low-nitrogen test strip</b>	<b>field-nitrogen test strip</b>
Manure nitrogen	168 pounds nitrogen per acre	168 pounds nitrogen per acre
Fertilizer nitrogen	3 pounds nitrogen per acre	60 pounds nitrogen per acre
<b>Total nitrogen supplied</b>	<b>171 pounds nitrogen per acre</b>	<b>228 pounds nitrogen per acre</b>
Nitrogen uptake	106 pounds nitrogen per acre	159 pounds nitrogen per acre
<b>Yield</b>	<b>16.6 ton per acre at 65 percent</b>	<b>20.6 ton per acre at 65 percent</b>

<b><i>Production efficiency</i></b> <i>How productive was the field at this nitrogen rate?</i>	$16.6 \text{ ton per acre} \div 168 \text{ pounds nitrogen per acre} = 0.10 \text{ ton per pound nitrogen}$ <p><b>low use efficiency</b></p>	$20.6 \text{ ton per acre} \div 228 \text{ pounds nitrogen per acre} = 0.09 \text{ ton per pound nitrogen}$ <p><b>low use efficiency</b></p>
<b><i>Uptake efficiency</i></b> <i>How much of applied fertilizer was used by the crop</i>	$\frac{(\text{nitrogen uptake in field-nitrogen strip} - \text{nitrogen uptake in low-nitrogen strip})}{\text{Additional nitrogen applied as fertilizer}} = \mathbf{93 \text{ percent of fertilizer taken up by the crop}}$	