

- $x_1$  acres of land devoted to wheat
- $x_2$  acres of land devoted to corn
- $x_3$  acres of land devoted to sugar beets
- $w_1$  tons of wheat sold
- $w_2$  tons of corn sold
- $w_3$  tons of sugar beets sold at a favorable price
- $w_4$  tons of sugar beets sold at the lower price
- $y_1$  tons of wheat purchased
- $y_2$  tons of corn purchased

$$\max 150x_1 + 230x_2 + 260x_3 - 238y_1 - 170w_1 + 210y_2 - 150w_2 - 36w_3 - 10w_4$$

Subject to:

$$\begin{aligned} x_1 + x_2 + x_3 &\leq 500, \\ 2.5x_1 + y_1 - w_1 &\geq 200, \\ 3x_2 + y_2 - w_2 &\geq 240, \\ w_3 + w_4 &\leq 20x_3, \\ w_3 &\leq 6000, \\ x_1, x_2, x_3, w_1, w_2, w_3, w_4, y_1, y_2 &\geq 0, \end{aligned}$$