

Large scale optimization models and indexing

CornCo, a large manufacturer of corn seed, operates 20 facilities producing 25 hybrid corn varieties and distributes them to customers in 30 sales regions. CornCo estimates the following parameters:

- The cost per bag of producing each hybrid at each facility.
- The corn processing capacity of each facility in bushels.
- The number of bushels of corn that must be processed to make a bag of each hybrid.
- The number of bags each hybrid demanded in each customer region.
- The cost per bag of shipping each hybrid from each facility to each customer region.

CornCo wants to know how to carry out production and distribution operations at minimum cost.