

SEED PLANT DESIGN

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Putting together a successful seed cleaning operation involves much more than buying a cleaner, some elevator legs and starting to clean seed. An efficient operation is the combination of several components into a coordinated system that is labor, energy and capital efficient. Designing such a system involves the combination of balanced subsystems with provisions for logical expansion.

We have developed the following checklist for formulating requirements for expansion. The checklist will assist you and your design engineer in tailoring a system to meet your needs.

Considerations for Seed Plant Building and Expansion

Type of Plant:

_____ New _____ Addition _____ Custom
 _____ Wholesale _____ Retail

1. Commodities to be Conditioned:

_____ Corn _____ Wheat _____ Soybeans
 _____ Oats _____ Edible Beans _____ Grass Types
 _____ Other

2. Types of Varieties (if more than one)3. Expected Foreign Material or Other Crop Seed to be Removed and Approximate Percentages:

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4. Type of Treating or Inoculating. If Required:

Operation:

1. Length of production season:
2. Working hours per day:
3. Days operation per week:
4. Size work force:
5. Cleaning capacity per hour:
 - a. Receiving
 - b. Finished seed:
6. Types of Cleaning Equipment Required:
 - a. Type of cleaning

_____ Scalp	_____ Sift	_____ Top & Back Air
_____ Scalp & Sift	_____ Top Air Fan	_____ Botton Blast Fan
 - b. Type of cleaner

_____ Receiving	_____ Rough	_____ Fine
_____ Cleaning for grade	_____	_____ Seed
_____ % Efficiency required		
 - c. Types & sizes of separating equipment required:

_____ Spirals	_____ Discs	_____ Cylinders
_____ Aspirators	_____ Gravities	
_____ Width & Thickness Graders		
 - d. Types of conveying equipment required:

_____ Vibrating	_____ Belt	_____ Drag Flow
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e. Types and location of bean ladders and traps required:

f. Other cleaning equipment required:

Facilities:

1. Receiving Methods:

_____ Bulk & Quantity _____ Bag & Quantity

Will more than one commodity or variety be received at a time?

_____ Yes _____ No

If yes, how many and what types?

_____ Truck _____ Rail _____ Other

_____ Is truck dumper required?

2. Storage Facilities:

Existing:

a. Type:

b. Amount:

c. Show layout on attached sheet

New:

a. Type:

b. Amount:

c. Is aeration required: _____ Yes _____ No

If yes, amount of C.F.M. per bushel:

d. Drying storage:

3. Type of In-process Storage:
 Total amount bushels needed:
 Number of bins: _____ Size of bins: _____
 Type of bins: _____
 Number and size of bulk holding clean seed bins: _____
4. Number and Size of Holding Bins Ahead of Bagging: _____
5. Speed and Type of Bagging Operation: _____
6. Method of Movement of Finished Seed from Bagging Operation: _____
7. Is Clean Seed Bulk Load-Out Required?
 _____ Yes _____ No
8. Size and Type of Warehouse Required:
 a. Square footage: _____
 b. Total bags required: _____
9. Scale: _____
10. Truck Dock Needs: _____
11. Power Availability: _____ Single Phase _____ Three Phase

NOTES: _____