

CONSIDERATIONS AND STEPS TO BE TAKEN  
IN PLANNING COLD STORAGE

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1. Consider location of Cold Storage plant regarding your normal traffic patterns:
  - a. from seedbed to cold storage
  - b. from cold storage to grading, counting, weighing and baling facilities.
2. Consider methods of handling to be used:
  - a. storage containers prior to processing into bales for shipping
  - b. hand carts for easy movement to areas needed
  - c. fork lift with pallet arrangement
  - d. fork lift with large container arrangement
  - e. fork lift with stackable hand carts. (Tilt-type platform trucks.)
  - f. combinations of all methods to meet your demand situations.
3. Consider refrigeration needs for the job to be performed: consult with a competent refrigeration engineer. Storage of nursery stock demands more capacity to maintain temperature than most storable items. Plants have an inherent ability to produce heat during storage. Consult with engineer about maximum daily load- i.e. 300 containers of stock weighing 100 lbs. each to be stored in one 8 hour shift. Conifers are probably highest in this category. Allow for this in your refrigeration unit specifications. Have back-up units to carry you over mechanical break-downs and to maintain temperatures during periods of heavy loading.
4. One single contract to cover all phases of construction would probably be the best solution to the erection of a Cold Storage plant.
  - a. Sub-contractors are obligated to the main contractor and work into his schedule more readily
  - b. Division of construction brings problems of timing: i.e. footings, foundations, floors must be ready for building construction. Building must be complete for roofers to begin work. Electrical circuits must be installed before refrigeration units can be charged with Freon and final testing. Coordination of the sub-contractors is difficult and time consuming.

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5. Final testing of units is necessary before accepting the plant.
  - a. All compressors, evaporators and condensing units functioning properly, pulling temperatures down to desired level and shutting down
  - b. Evaporator fans running between compressor cycles
  - c. Electric defrost system operating as planned. Evaporator fans shut down, compressor shuts down during defrost. If hot gas defrost system, evaporator fans shut down, compressor runs
  - d. Drainage of moisture from evaporator coils returns to floor of cold chamber, or the unit will act as a dehumidifier.