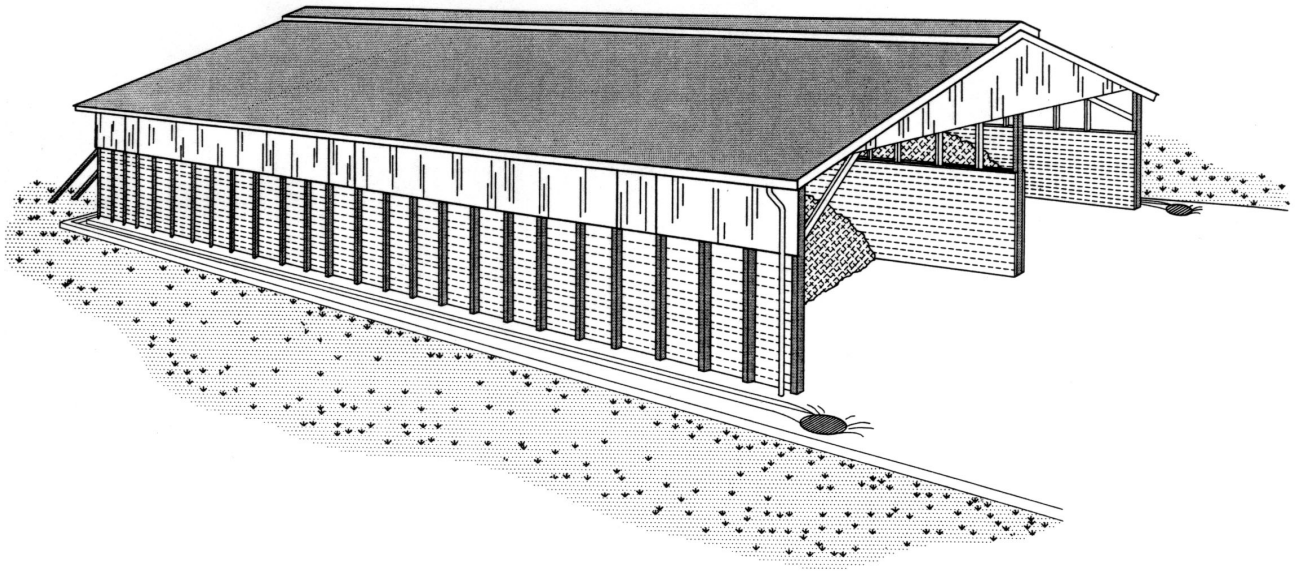
COVERED TIMBER BUNKER SILO DOUBLE COMPARTMENT



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This is a conceptual plan set for a horizontal covered silo with **17'-6"** high walls designed for **10 Feet** of storage or **19'-6"** high walls designed for **12 feet** of storage maximum. The silo walls are covered with pressure preservative treated tongue and groove planking, nailed to treated wood posts, spaced **3 feet** apart.

Detailed construction plans for silos of different capacities can be designed from this conceptual plan by varying the width and length of the structure. The clear-span roof is supported by **two mono trusses**, which are also used to tie the posts. This prevents the walls from moving outwards due to the pressure of the silage. The roof helps to reduce spoilage in areas of high precipitation and strong winds.

The silo is divided into **two sections**. The two sections can be used to separate grass and corn silage or can be used to provide a larger storage capacity, with a narrow face width, resulting in a faster rate of removal from the face.

The silo can be filled by blowing the silage into the silo with a forage blower, unloading of a forage wagon, or by means of a dump wagon. The silage must then be spread and packed with a tractor. Thorough packing squeezes air out, which **helps reduce spoilage and increases storage capacity**. Tractors used for packing silos should be equipped with roll bar protection.

A **ridge vent** on the roof is required for venting of tractor fumes and for ventilation of silage gases and moisture generated by self-feeding of livestock.

Always **cover the packed silage** with a sealing membrane such as 6-mil. black polyethylene plastic. This film can be in widths up to 40 feet wide. Anchor the plastic down securely with wet sawdust, rope netting, a layer of old tires, or baled hay or straw to prevent billowing and tearing of the plastic by the wind. The baled straw also adds insulation to reduce freezing.

Bunker silos can be unloaded with a front-end loader. These horizontal silo unloaders leave the feeding face smooth and even for minimum drying and spoilage; however, a medium-to-high horsepower tractor is required to operate one. Silage is loaded into a forage wagon or mixer wagon for delivery to the feeding area.

Alternatively, **silage can be self-fed from this silo**. The upper part of the feeding face must be trimmed down to prevent undermining. More spoilage usually results with this method of feeding as a result of the cattle pulling the feed off the face and dropping it in the manure. For **winter feeding** the open feeding face of a horizontal **silo should face south** for maximum exposure to the sun.

To reduce spoilage, a minimum of **three inches** of silage in cold weather and **four inches** in **warm weather** should be removed from the face daily.