the rate of about 2.5 gallons per ton for each percentage point to be added. To increase the moisture content 2 percentage points, 5 gallons of water need to be added to each ton or approximately 35 bushels.

Several considerations are important when ensiling high moisture corn. The producer must determine if the type of storage which is available or to be purchased is suitable for the storage of ensiled high moisture corn. There are essentially two or possibly three major types of storage systems available for the storage of high moisture corn. The first are the conventional upright storage structures which include concrete stave, poured concrete, and other types of silos typically used for ensiling forage (Figure 1). Upright storage bins which are specifically designed for the storage of high moisture corn may also fit into this category.

A second type of storage system for high moisture corn is the limited oxygen storage system (Figure 2). These units are specifically designed to handle all types of high moisture grain and forage for feeding purposes. These units are usually constructed of high quality materials which retard corrosion and other difficulties associated with highly acidic materials. Limited oxygen storages are generally glass lined or epoxy coated to keep the acidity from coming into contact with the metal part of the structure. Consequently, limited oxygen storages are considered to be of high quality. Also, they generally cost more to purchase and install.

A third type of storage system which may be considered for the storage of high moisture corn is the horizontal silo (Figure 3). This may be simply a trench or a bunker-type silo (Figure 4), or the commercially available systems (Figure 5) which involve compaction of silage or high moisture corn into large plastic bags (150-180 tons). The plastic bag (if not damaged) is airtight. For the trench or bunker-type silo, provision

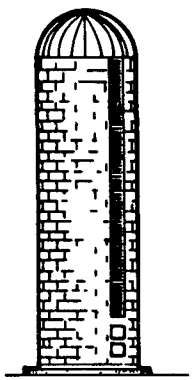

FIGURE I. CONVENTIONAL UPRIGHT SILO