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Once the bunks, silos, and ag-bags are filled and sealed, the process of silage fermentation begins.

### **What Are the Best Inoculants to Apply?**

There are many inoculants on the market and it is difficult to compare one to another. However, there are some key factors to consider when purchasing an inoculant that may help improve success. First off, look for a product that guarantees to supply at least 90 billion live lactic acid bacteria per ton of crop. Certain strains of lactic acid bacteria are selected for particular crops (i.e. corn or grass), therefore make sure you purchase an inoculant labeled for the crop that you are going to ensile. There are both liquid and dry inoculants commercially available. Either type can do the job, however liquid formulations have some advantages over dry. Liquid applications generally are more uniform, begin to work faster, and are easier to store (smaller packets that can go in the refrigerator) than dry products. However, if using a liquid inoculant avoid chlorinated water (less than 1 ppm) because it can kill the bacteria. If you have chlorinated water purchase inoculants that contain compounds that will neutralize the chlorine. Not all inoculants are created equal so don't be afraid to ask the dealer for product research (preferably done by an independent researcher). Once you purchase an inoculant, proper storage (cool and dry conditions) will help maintain bacterial viability. Improper storage of your inoculant can result in death of the bacteria and dead bacteria are useless.

### **What Is the Best Way to Apply Inoculants?**

These bacteria cannot move; they grow where they are placed, and therefore uniform coverage is essential for maximum effectiveness. A liquid sprayed on the crop at the chopper is the best opportunity to distribute and mix the inoculant the most uniformly with the crop. There are many other ways to apply inoculant, however, this does not include throwing dry inoculant on to a wagonload of forage and hoping for even distribution. It is important to use the recommended rate as application of less or more of the inoculant will not be helpful and is a waste of money. After 24h from the time of mixing, unused liquid should be discarded as the bacterial population will have begun to decline. Do not apply inoculants to silage that has already completed fermentation.

Inoculants when used properly can improve silage quality and animal performance. Y