Abstract

The objective of the Silage Corn Hybrid Performance Test is to provide unbiased forage yield and quality data for corn hybrids commonly grown in Kentucky. In addition to collecting yield and quality data from each plot, disease pressure was tracked at several locations. Data collected through this trial gives farmers the ability to make decisions for the following crop year based on unbiased research and allows them to fairly compare hybrids. Decisions made utilizing this data have allowed farmers to accomplish greater livestock production profitability.

In 2007, Kentucky beef and dairy producers grew 84,791 acres of corn for silage with an average yield of 13.7 tons per acre. The Agriculture & Natural Resources agents of the University of Kentucky Cooperative Extension Service saw this as an opportunity to educate producers about corn silage hybrid selection and increase silage yields and quality in Kentucky. In 2010, a group of agents from 12 counties cooperated with the University of Kentucky Grain Crops Specialist, Dr. Chad Lee to perform corn silage variety trials in three locations across Kentucky.

Introduction

Kentucky beef and dairy producers rely on corn silage for feed. Hybrid performance can greatly affect both quantity and quality of corn silage produced. Producers need unbiased performance data for corn hybrids for silage.

Objectives

- Provide unbiased forage yield and quality data for corn hybrids commonly grown in Kentucky

Materials & Methods

Location: Hybrids were evaluated for silage performance on cooperating farms in Adair, Boyle, and Mason counties.

Treatments: Twenty-three (23) varieties submitted by 11 companies were tested. Each location was managed by the cooperating farmer using fertilizer recommendations according to University of Kentucky AGR 1 publication.

Experimental design: Small plot, randomized complete block design with 3 replications. Plot size was 4 rows x 40 ft.

Plot management: Hybrids were planted with standard planters at a target seeding rate near 30,000 seeds per acre by UK personnel or third party contractors. Field was monitored for pests. UK personnel harvested, weighed, chopped, and packaged corn for quality analysis. Dr. Chad Lee conducted the statistical analyses and final reporting of performance.

Sample collection: When most hybrids were near 35% DM (65% moisture), two 10-ft sections of each hybrid were harvested by hand from each plot. The entire harvested corn sample was weighed. Five to six whole plants from each hybrid were chopped through a silage chopper and a subsample was collected. Samples were analyzed by Dairy One Forage Lab.