GRAIN QUALITY

Task Force

1991 Carryover Corn May Still Threaten Horses

Dr. Leon Thacker, Director, Animal Disease Diagnostic Lab Mark Russell, Extension Horse Specialist Don Scott, Botany & Plant Pathology Jeris G. Eikenberry, Indiana State Chemist Office

Preliminary reports indicate that the 1992 corn crop may be the largest and the most free of mold-related problems in recent history. However, Purdue specialists warn that a potential danger to horses still lurks in the 1991carryover corn.

In late 1991 and early 1992, an unusual amount of the mold *Fusarium moniliforme* was found in the 1991 corn crop. At the same time, several horses began to show the symptoms of a disease caused by the mycotoxin, fumonisin, which is produced by *Fusarium moniliforme*. In late winter, as many as 100 horses may have died from this problem. During that time more than 113 samples that were suspected of contamination were examined for fumonisin, with over 44% found to contain more than 5 ppm, which is generally accepted as the probable level to cause the disease in horses.

It is not known whether the late-winter survey was representative of the whole 1991 crop. Purdue Extension Horse Specialist Mark Russell recommended cutting back the amount of corn used in feeding horses. It is not necessary to stop feeding corn altogether; however, you should dilute the amount of corn used with other grains or with forage and other protein sources. This tactic seemed to work, as only a few widely scattered incidents have taken place in the past seven months. Very few incidents have occurred when a total mixed ration with good forage sources was used. Given this information, Purdue scientists advise horse owners and horse feed manufacturers alike to be cautious when using 1991 carryover corn in feed rations. It appears, at least preliminarily, that the 1992 crop may have a much lower incidence of the mold *Fusarium moniliforme*.

It is suggested that you investigate the corn source being used by horse feed manufacturers and do not use any corn that does not appear to be in good condition, although it is not always possible to visually detect mycotoxincontaminated corn. Generally, horse owners never should feed corn that is not in good condition under any circumstances. If you have questions, contact Mark Russell, Extension Horse Specialist at Purdue, or the Animal Disease Diagnostic Laboratory through your local veterinarian.