

Cyanide (Prussic Acid) Testing Oklahoma State University

- * Cyanide is a gas
- * Most cyanide is in the leaves.
- * Only fresh cut samples are suitable for testing.
- * They are only suitable for testing if they are immediately placed in an airtight bag.
- * A Zip lock bag is good only if the top is zipped shut. Other brand bags are not air-tight.
- * Feed sacks are not air-tight.
- * Any dry sample will test negative.
- * Only in rare cases would any hay be suitable for testing. (Fresh cut or extremely tight bale)

Cyantesmo paper is a faster test for cyanide than the Picrate test.

1. A small piece of Cyantesmo paper is placed in the bag with the fresh leaves.
2. Fresh leaves can be cut up with scissors while still in the bag. (This simulates the damage done to the plant by chewing, etc.)
3. The strip should turn from light green to blue in 5 minutes or less.
4. The strip works fastest in warm conditions.
5. Do not expose unused Cyantesmo paper to light for long periods of time.
6. Young leaves from Nandina shrubs are a good positive control.
7. Positive test indicates 100-200 ppm which is toxic.
8. Prunus species leaves and other plant parts are very high in prussic acid. Nandina is used as a check for test. It is always high.

Reference:

Strickland, G, G. Selk, H. Zhang, and D.L. Step. 2010. Prussic Acid Poisoning Oklahoma State University fact sheet PSS-2904-2. <http://osufacts.okstate.edu/> (Accessed 11-09-2011).

Rella J, S Marcus, and BJ Wagner. 2004. Rapid cyanide detection using the Cyantesmo kit. J Toxicol Clin Toxicol. 42(6):897-900.