

TLC of Tannin

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For assessing purity of tannins

For hydrolyzable tannins

from Lea *J. Sci. Food Agric.* 29, 471 (1978)

Mobile phase: Toluene:acetone formic acid 60:60:10 (v/v/v)

Stationary phase: Silica plates

Tannin stays at the origin. Other phenolics migrate. Tannic acid often gives multiple spots corresponding to the various degrees of esterification.

For identifying various procyanidin dimers and trimers

from Porter in *Methods in Plant Biochemistry* Vol. 1 (J. B. Harborne, ed., Academic Press 1989) pages 389-419.

Mobile phase 1: tert-butanol:acetic acid:water, 3:1:1 (v/v/v)

Mobile phase 2: 6% acetic acid

Stationary phase: Cellulose plates

A diagram showing the positions of various procyanidins is given in Porter's chapter.

Spray for phenolics on TLC

A useful TLC spray can be made by mixing equal volumes of the two Price and Butler Prussian blue reagents and spraying onto dry plates. Phenolics give bright blue spots. A blue background eventually develops. The spray mixture must be made fresh, and should be brown in color. It should be discarded if it turns blue.