Tannin extracts and oak: past and present

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Botanical sources of oenological tannins

Their composition and impact varies – for example, depending on whether they are condensed or hydrolysable tannins, derived from seeds or bark. Oenological products are often proprietary blends.

Using what was available

This image shows workers peeling bark for use at tannery around 1850 – initially tanners relied on the raw materials near them.

Tannin used in wine in 1877

Tannin is mentioned in several 19th century advertisements – for example, disease prevention and colour enhancement.

Tannin production process

Tannin used in wine in 1877

The term tannin is intimately linked with leather production. The term was coined to describe the substances in plant extracts that helped transform animal skins into leather. It was derived from the word tan, which means oak bark, and which was often used in leather production.

From wood/bark to extracts

In the mid-19th century wood/bark began to be substituted with tannin extracts, vastly reducing the time required for leather tanning (e.g. from one year to one month). Initially, concentrated liquid extracts were used, then wet powders and then spray dried powders. This also vastly reduced the amount of material needed, and instead of using local materials it could be transported from anywhere in the world.

Tannin – a strategic resource

Vegetable tannins were at a time a strategic resource – for example leather was needed for soldier’s boots. They declined in trade from the CIA around 1950 although they are still used in the production of leather.

Decline of vegetable tannin

Vegetable tannin use peaked in the late 1840s before declining. Major factors in the decline were the increased use of chrome tanning (a much faster way of tanning leather) and the substitution of leather with other materials like rubber and plastics (de-Quebracho, mimosa, and chestnut are the three largest vegetable tannin suppliers that provided information and the AWRI library).

Increasing oak extraction speed

Oak adjuncts (chips, etc.) are cheaper than barrels but are still time-consuming to use and putting them in and removing them from tanks involve manual labours. Multiple suppliers have recently launched systems to optimise the contacting process or create concentrated extracts that can be back-added to tanks (more basic version of this concept has long been used by vintners – e.g., preparing tanks of very heavily oaked wines for blending).

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Article: This poster is a summary only – a more detailed article may be written in the future.

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