Abstract
Erbaluce a hidden gem or a minor grape

The motivation behind this study arises from a growing recognition of the need to diversify global viticulture and amplify underrepresented grape varieties, particularly those with strong cultural roots and environmental adaptability. Erbaluce di Caluso, an indigenous white grape from the Canavese subregion of northern Piedmont, Italy, has long been regarded as a “minor grape” due to its limited geographic cultivation and modest commercial visibility. However, its historical prestige, agronomic resilience, and capacity for stylistic variation suggest that this label may be misleading. As the wine industry increasingly values authenticity, regional identity, and climate-resilient varieties, Erbaluce presents a timely subject for re-examination. The study is also informed by a broader commitment to inclusive viticultural discourse that moves beyond globally dominant grape varieties.

The core objective of this research is to critically assess whether Erbaluce’s marginal status is justified by its intrinsic qualities or whether it is, in fact, an undervalued variety with the potential for broader recognition and adaptation. The central problem addressed is the apparent contradiction between Erbaluce’s established high quality in local contexts and its continued obscurity in international markets and academic literature.

To investigate this, the study employs a mixed-methods approach that combines historical research, terroir analysis, scientific literature review, and qualitative fieldwork.
Historical texts and archival sources establish the grape’s cultural and viticultural heritage, beginning with its first documentation in 1606 by G.B. Croce and its subsequent acclaim in the 19th century, including recognition at the 1855 Exposition Universelle in Paris. A detailed examination of the Caluso region’s terroir—including glacially formed, mineral-rich soils and a continental climate—provides a basis for understanding the grape’s distinctive expression and viticultural constraints. The scientific component synthesises studies on canopy management, rootstock compatibility, plant physiology, and disease resistance, while also assessing the impact of evolving climatic conditions.
Field interviews with three producers—Cieck, Orsolani, and Chiussuma—offer practical insights into contemporary production methods, sustainability concerns and market orientation.

The content of the thesis is organised across five thematic chapters.
The first examines Erbaluce's historical trajectory, including its decline during industrialisation and its gradual resurgence beginning in the 1960s.
Chapter two delves into the region's terroir, analysing how sandy, gravel-rich soils and glacial morphology contribute to the grape's mineral, saline profile while also posing irrigation and training challenges.
The third chapter profiles the characteristics of Erbaluce, including its early bud break, thick skins, high acidity, and modest fertility—traits that offer both opportunities and cultivation difficulties. Chapter four integrates findings from recent scientific studies, including the grape's apparent phylloxera resistance due to soil composition, the limited influence of rootstock on performance, and the effects of pest damage on phenolic development. Notably, the Passito wines made from Erbaluce show complex volatile profiles and elevated acidity, attributed in part to noble rot and fermentation esters. The fifth chapter presents producer perspectives that illustrate the diversity of winemaking approaches: Cieck's experimental techniques (e.g., ice pressing and orange wine), Orsolani's traditional style, and Chiussuma's artisanal focus on skin contact. Despite their differing methods, all producers emphasise Erbaluce's hallmark traits: vibrant acidity, ageing potential, and terroir transparency.

The study concludes that Erbaluce di Caluso is more accurately characterised as an undervalued gem rather than a minor grape. Its versatility across dry, sparkling, and dessert styles—combined with its resilience in the face of climate variability—indicates strong potential for expanded cultivation and market appeal. However, its further development requires innovation in training systems to reduce water use and labour demands, greater investment in promotion and export strategies, and clearer stylistic benchmarks to anchor consumer understanding. While Erbaluce's identity is deeply linked to the morainic soils of Caluso, early trials in California's Russian River Valley suggest adaptive potential in other cool-climate regions. The research calls for further investigation into Erbaluce's disease resistance and sensory expression in new environments.

By reevaluating a grape historically marginalised in mainstream viticulture, this study contributes to a more inclusive and diversified understanding of quality in wine. Erbaluce di Caluso exemplifies the kind of native variety that, with strategic innovation and renewed visibility, could help redefine what constitutes excellence and distinctiveness in white wine production on a global scale.