

Difference in the phenology of *Erythrina crista-galli* (Ceibo) populations from two study sites (urban and non-urban areas) in Zavalla, Santa Fe, Argentina

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Summary

Phenology, a branch of Bioclimatology, analyzes the natural periodic changes of living organisms and their relationship with meteorological conditions. In plant species, temperature is a determining factor, as it influences the occurrence and duration of different phenophases. The aim of this study was to characterize and compare four phenological phases of two *Erythrina crista-galli* L. (Ceibo) populations: one located in the urban area of Zavalla and another Villarino Park (non-urban area), during the 2021–2023 period, with particular focus on evaluating the flowering phase under the observed conditions. The recorded phases were leaf flushing, flowering, fruiting, and leaf fall. A phase advancement was determined in the non-urban area, along with differences in phase duration between sites. The leaf fall phase exhibited the greatest contrast between study areas. Fruiting began on approximately the same date in both sites, without further progression beyond the presence of isolated fruits. Leaf flushing and flowering were identified as the most sensitive stages to temperature variations. We conclude that both environmental context and climatic variability affect the onset, end, and duration of phenological phases. This study represents a first contribution to understanding the phenological behavior of *E. crista-galli* in urban and non-urban contexts of the region.

Key words: *Erythrina crista-galli*, phenological differences, urban environment, climatic variability