

LEAF SENESCENCE OF TARO (*KOCHU*) IN PRE-AMPHAN AND FIG (*DUMUR*) IN POST-AMPHAN PERIODS IN WEST BENGAL

N. C. Nandi and M. K. Dev Roy*

Social Environmental and Biological Association, Kolkata

Email : nepalchandra.nandi@gmail.com ; *Email : malay_7@rediffmail.com

While observing phyllomegaly in Taro and Fig plants, leaf senescence was also noted. Leaf aging or yellowing of leaves, technically known as leaf senescence was observed in March to June 5, 2020 during pre Amphan and post Amphan super cyclone periods. In wetland plant, Taro (*kochu*), *Colocasia esculenta*, leaf senescence was found to initiate along the leaf margins in some leaves, while in others from apex and/or basal leaf blade angles, and also haphazardly from one or both leaf margins; and yet in others along the inter rib areas (Figs. 1-3). The reason for such initiation and advancement of aging is apparently obscure, though there is a usual tendency of affecting the thinner areas first. In Fig (*dumur*), *Ficus carica*, leaf aging initiates usually from leaf blade apex and/ or base, though affecting overall blade or anywhere is not uncommon. Dying and dark browning of leaf portions follow the progression of leaf yellowing (Figs. 4-5). The present fig plant has large leaves which are apparently not old; and hence aging or yellowing of leaves may be due to post Amphan stress related impact.

According to Home & Garden Information Center of University of Maryland Extension (<https://extension.umd.edu/hgic/topics/natural-senescence-older-leaves>) many plants normally shed lower (older) leaves as the plant grows. However, plants have both stress-induced and age-related developmental aging (Buchanan-Wollaston 2008, Rapp *et al.* 2015, https://en.wikipedia.org/wiki/Plant_senescence). Further observation in some other plants may suggest possible process of initiation and advancement of leaf senescence.

References

1. Buchanan-Wollaston V. (2008). Senescence processes in plants. Annual Plant Reviews, Volume 26. *Annals of Botany*, 101(1), 197. <https://doi.org/10.1093/aob/mcm286>
2. Rapp, Y. G., Ransbotyn, V., & Grafi, G. (2015). Senescence Meets Dedifferentiation. *Plants (Basel, Switzerland)*, 4(3), 356–368.
3. <https://doi.org/10.3390/plants4030356>
4. <https://extension.umd.edu/hgic/topics/natural-senescence-older-leaves>
5. https://en.wikipedia.org/wiki/Plant_senescence



Fig. 1. Yellowing along the leaf blade margins of taro leaf



Fig. 2. Yellowing at the inter-rib regions of taro leaf



Fig. 3. Yellowing of apex and one half of leaf blade of taro plant



Fig. 4. Yellowing of apex and base of a large fig leaf



Fig. 5. Yellowing and drying of a large fig leaf from apex