

## CORRESPONDENCE

trash or garbage after removing their containers and mixing them with something undesirable in packed appearance could be safer usually. However, management of collecting expired medicines from home or societal level is highly required in practice, which is an issue of concern. Furthermore, 93% of people favour collecting expired medicines from home through framed government programme<sup>2</sup>. Therefore, strengthening pharmaceutical waste management at the home or societal level should be the

safest way and also it would be a turning point in Swachh Bharat Mission. Government must ensure to implement an efficient system of waste management through realistic policy for the appropriate derivation in practical terms for disposing the remains of unused and expired medicine in public interest.

1. Kesava Rao, K., *Curr. Sci.*, 2022, **123**(5), 625.

2. Manocha, S., Suranagi, U. D., Sah, R. K., Chandane, R. D., Kulhare, S., Goyal, N. and Tanwar, K., *Curr Drug Saf.*, 2020, **15**(1), 13–19. doi:10.2174/157488631466619100-8095344. PMID: 31593533; <https://pubmed.ncbi.nlm.nih.gov>

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## Volume of tree species

In a recent article, Apoorva *et al.*<sup>1</sup> have calculated the volume of different tree species using the formula  $V = \pi \times r^2 \times h$ , where  $V$  is the volume,  $r$  the radius at breast height (DBH/2) and  $h$  is the height of the tree. The form of a tree trunk can never be a perfect cylindrical, therefore the above-mentioned formula cannot be used for the estimation of volume of any tree species. Species-specific volume equations developed by several researchers should have been used to estimate the volume of standing trees. Thus, the results and conclusions are based on wrong calculations.

1. Apoorva, M. R. *et al.*, *Curr. Sci.*, 2023, **125**(3), 324–329.

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### Response

The formulae used and the procedures followed are supported by standard methodology and formulae, with references cited for all of them at each step of the calculations. The papers published in this aspect in other journals of environmental sciences, forestry

and related subjects have also been quoted. They are all based on standard procedures, as mentioned in our article.

All articles referred by us cannot be erroneous. Here, we cite a few in support of our study, although many are available (online and offline) on this research aspect.

(i) Keerthika and Chavan<sup>1</sup> have calculated the mass of tree species based on the wood density of different species according to FAO estimates (<http://www.fao.org/3/w4095e/w4095e0c.htm>).

Wood density = Biomass/volume.  
Biomass = Volume × wood density.

(ii) Sharma *et al.*<sup>2</sup> have assessed the carbon sequestration potential of tree species in Amity University Campus, Noida.

(iii) Keerthika and Parthiban<sup>3</sup> have calculated the volume of a standing tree using the following equation:

$$\text{Volume of tree (m}^3\text{)} = \pi r^2 h.$$

(iv) Mithbavker *et al.*<sup>4</sup> have conducted a case study on the carbon sequestration potential of trees in an urban area.

(v) Preeti Toppo *et al.*<sup>5</sup> have conducted a study on biomass, productivity and carbon sequestration of plant growth under the silvipastoral system.

Hence, we would like to emphasize that our calculations were done following standard formulae, procedures and according to the standard references in many scientific studies.

1. Keerthika, A. and Chavan, S. B., *Curr. Sci.*, 2022, **122**(7), 850–853.
2. Sharma, R., Pradhan, L., Kumari, M. and Bhattacharya, P., *Environ. Sci. Proc.*, 2021, **3**, 52.
3. Keerthika, A. and Parthiban, K. T., *Curr. Sci.*, 2022, **122**(1), 61–69.
4. Mithbavker *et al.*, *Int. J. Adv. Res. Innov. Ideas Educ.*, 2022, **9**(3(VII)), 53.
5. Preeti Toppo, Oraon, P. R., Bijay Kumar Singh and Abhay Kumar, *Curr. Sci.*, 2021, **121**(12), 1594–1599.

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