

# Review of: "Antimicrobial Ayurveda Crops as Superfoods for Export, Conservation & Farmers' Benefit"

Maria Jose Ruiz Alvarez<sup>1</sup>

<sup>1</sup> Istituto Superiore di Sanità

**Potential competing interests:** No potential competing interests to declare.

The article titled "Antimicrobial Ayurveda Crops as Superfoods for Export, Conservation & Farmers' Benefit" presents a pertinent idea in the current context, addressing the urgent need for alternatives or complements to antibiotics. Additionally, it offers suggestions for supporting the economy of a Low- and Middle-Income Country (LMIC), recognizing the socio-economic aspects crucial in combating Antimicrobial Resistance (AMR).

However, the statement "It is caused by the overuse or misdirected use of antibiotics" should be revised and taken into consideration to reflect the role of random mutations, particularly under environmental pressure, which contribute significantly to AMR.

The article could benefit from further content inclusion, particularly in the introductory section, to clearly reorganize the review's objectives.

If authors want to highlight the antimicrobial properties of these 4 superfoods proposed (Kangkong, Spine gourd, Lotus, Water Chestnut), they have to identify the chemical structures of bioactive compounds identified as potential AMR among all the complex composition, including also some clinical studies that reinforce their implementation in health care. Detailed experimental procedures, sample sizes, and statistical analyses are essential for scientific translation from preclinical to clinical use.

Furthermore, the presentation of scientific data showing their combination with the use of antibiotics can strengthen the conclusions and address AMR globally, suggesting avenues for future research. It is important also to describe Ayurvedic product toxicity/secondary effects in human and animal use. Of course, it is also important to consider the economic aspects, but always secondary to the right clinical study for safe and effective implementation.

With some additional refinement and depth, your article has the potential to make a significant contribution to the field, offering valuable insights into combating antimicrobial resistance and promoting sustainable agricultural practices.