

Nitrofurans

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Nitrofurans Latest News

Recently, FSSAI launched an egg safety drive after 'nitrofurans presence' triggers uproar.

About Nitrofurans

- Nitrofurans are synthetic **broad-spectrum antibiotics**.
- There are four parent compounds that comprise the nitrofurans class: **furazolidone, furaltadone, nitrofurazone, and nitrofurantoin**.
- The defining structural component is a **furan ring with a nitro group**.
- These were once widely **used in poultry, pigs, shrimp and other livestock** because they are cheap and highly effective.

Key Features of Nitrofurans

- These are **synthetic chemotherapeutic agents** with a broad antimicrobial spectrum.

- They are active against both **gram-positive and gram-negative bacteria**, including **Salmonella** and Giardia spp, trichomonads, amebae, and some coccidial species.
- They are much more **active in acidic environments** (a pH of 5.5 is optimal for nitrofurantoin activity).
- They are **primarily bacteriostatic**, but at high doses they are also bactericidal.

Impacts on Human Health

- **Carcinogenic potential:** Some nitrofurans have shown **carcinogenic effects** in animal studies.
- **Toxicity concerns:** Potential toxicity and side effects in humans, particularly with prolonged use or high doses.

Source: **New India Express**

Source: <https://vajiramandravi.com/current-affairs/nitrofurans/>

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