

SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES

Affiliated To The Tamil Nadu Dr. MGR Medical University, Chennai

Approved by Pharmacy Council of India, New Delhi.

Coimbatore -641035

COURSE NAME : PHARMACOGNOSY

D.PHARM/ I YEAR

TOPIC 12 : TANNINS

DESIGN THINKING STAGES IN CLASSIFICATION

Empathize: Understand the users — in this case, students, pharmacists, or researchers who use the alphabetical classification system.

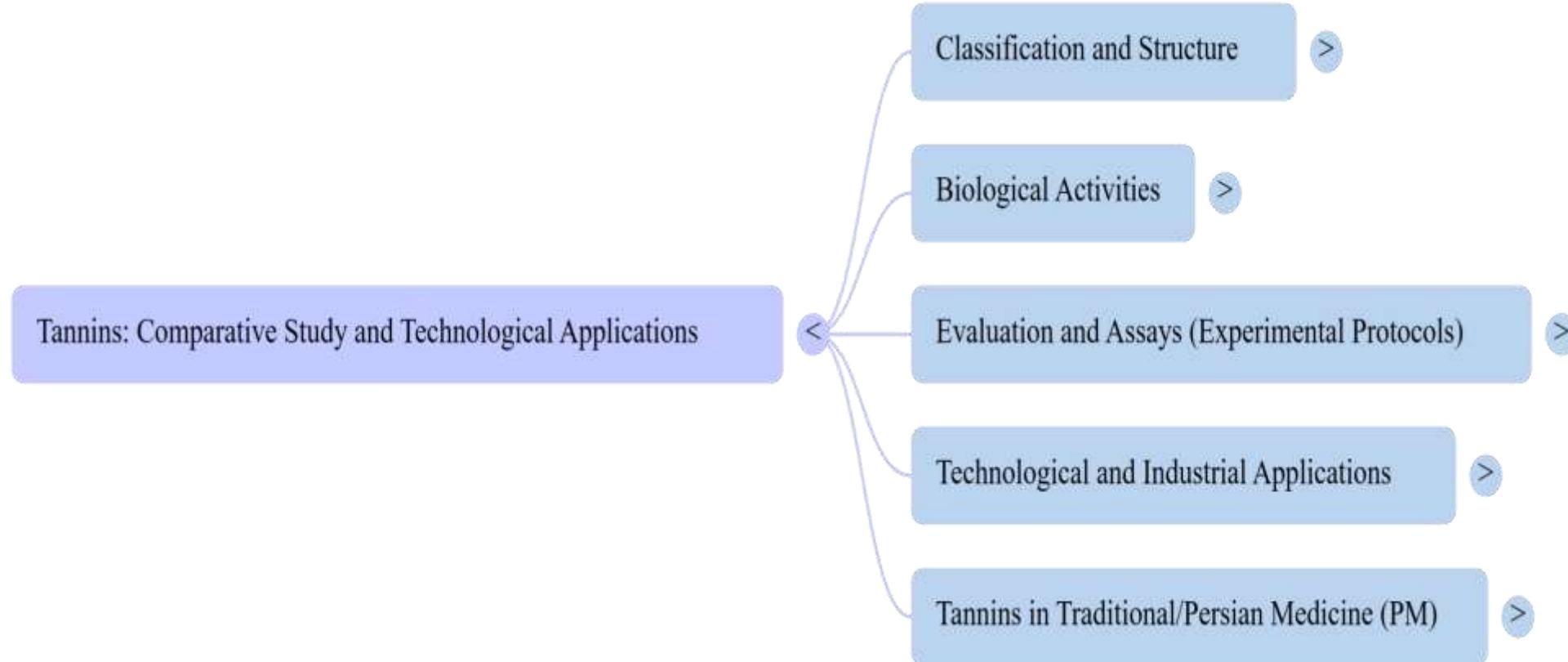
Define: Clearly define the problem based on the insights from the empathize stage.

Ideate: Generate possible solutions or improvements.

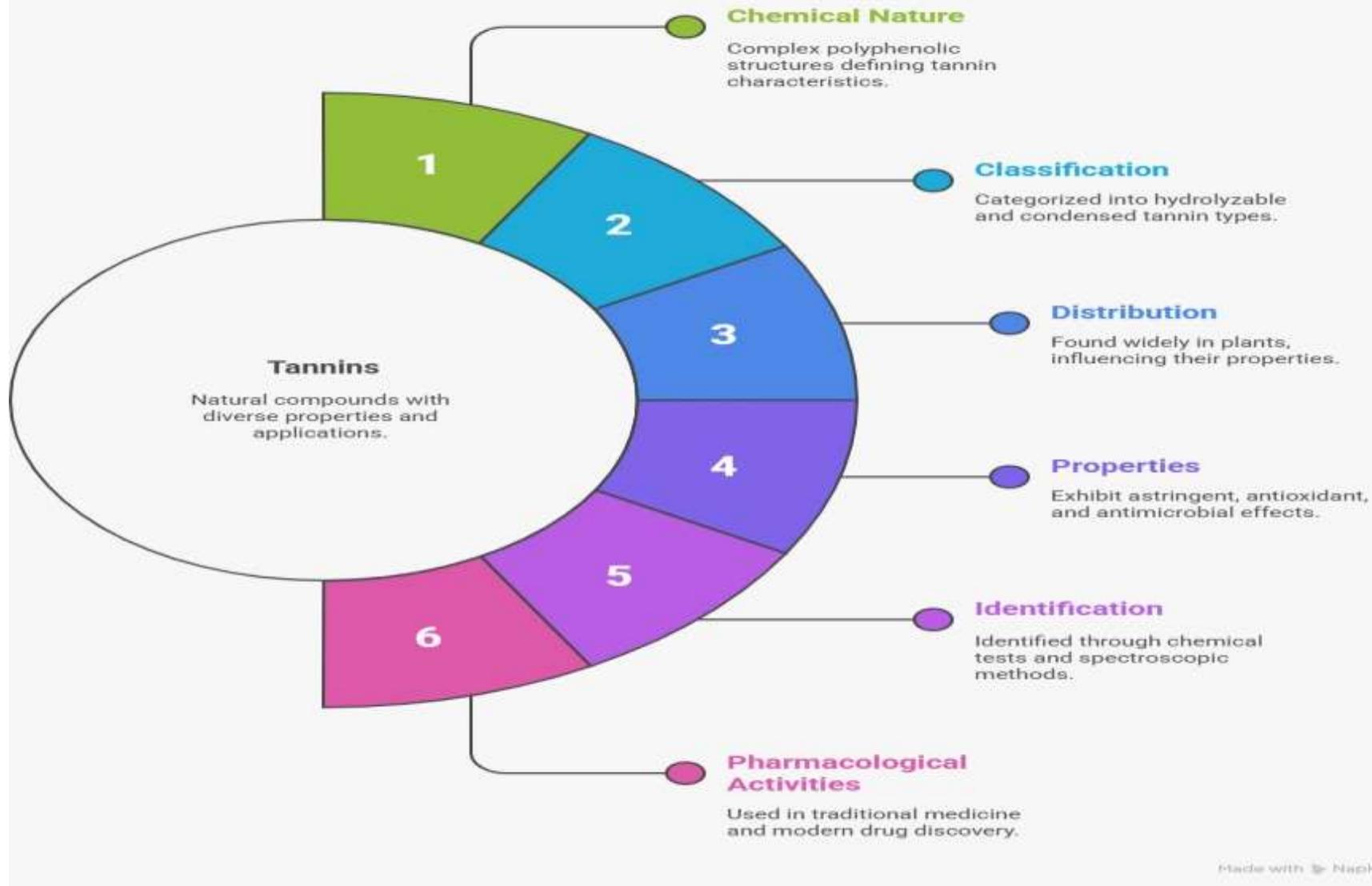
Prototype: Create a tangible version of your solution

Test: Evaluate the prototype with real users.

MINDMAP



Exploring the Multifaceted World of Tannins



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Methods for Tannin Identification

Chromatographic Methods

Separates and identifies individual tannins

Ferric Chloride Test

A simple test using ferric chloride to detect tannins

Hydrolysis Test

Identifies tannins by releasing phenolic acids

Gelatin Test

Tannins precipitate gelatin due to protein-binding

Vanillin-HCl Test

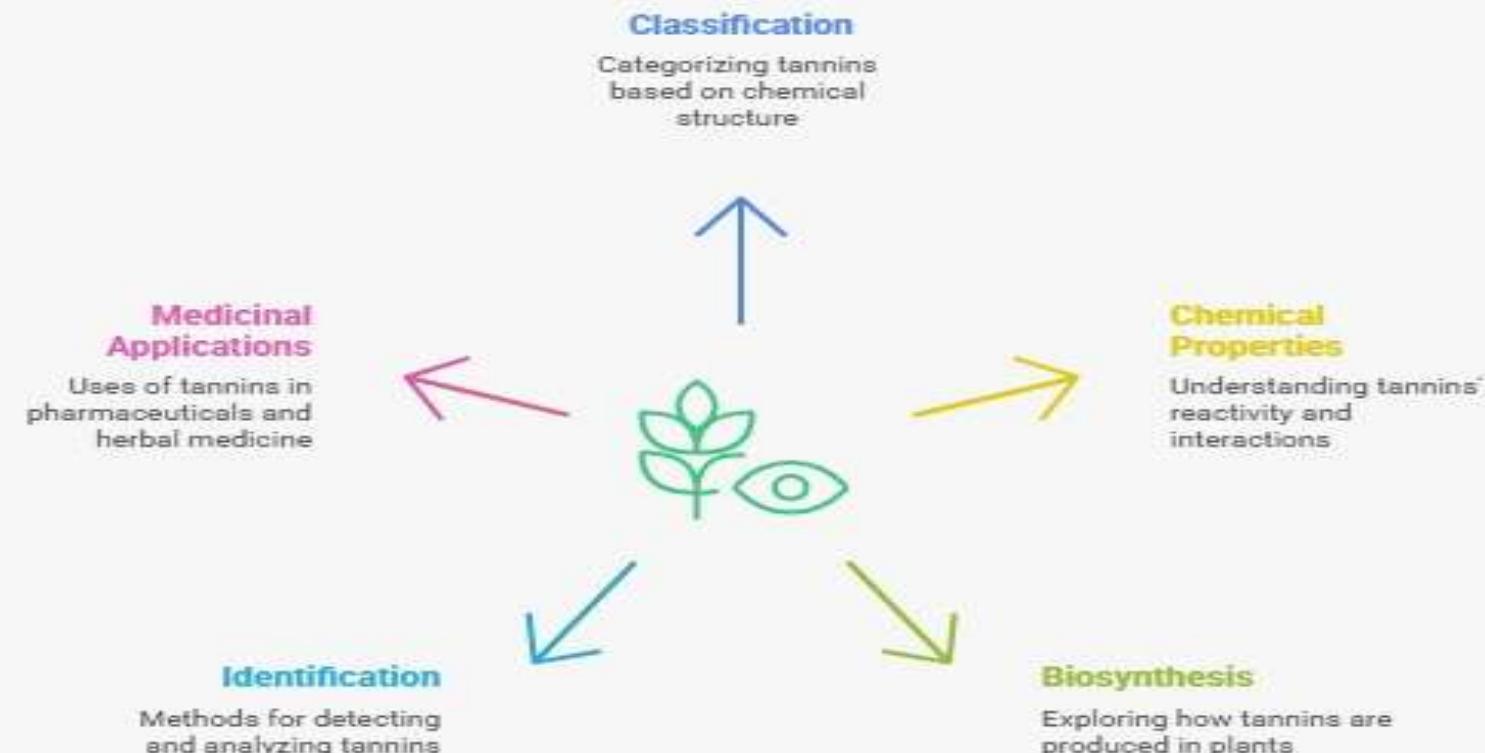
Specific for condensed tannins, turning red or pink

Goldbeater's Skin Test

Skin turns brown or black in the presence of tannins

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Tannin Research Areas



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Tannins' Multifaceted Roles

Anti-inflammatory Effects

Tannins reduce inflammation, aiding in healing processes.



Protein Precipitation

Tannins precipitate proteins, crucial for leather tanning.



Antimicrobial Actions

Tannins inhibit microbial growth, preventing infections.



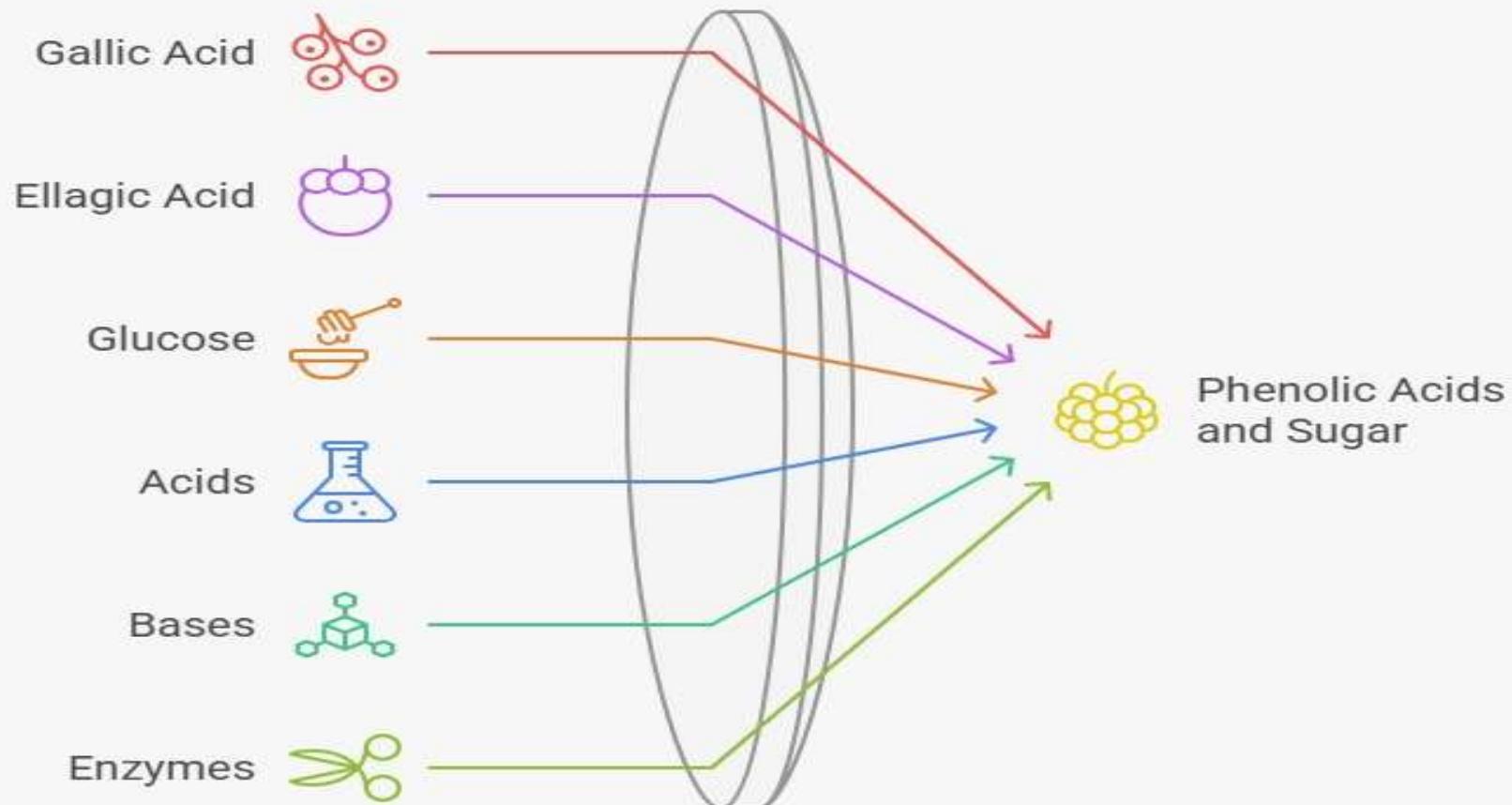
Antioxidant Properties

Tannins neutralize free radicals, protecting cells from damage.



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Hydrolyzable Tannin Decomposition



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Exploring the Multifaceted World of Tannins

Identification

Identified through chemical tests and spectroscopic methods.



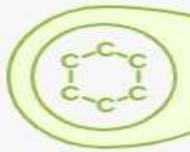
Distribution

Found widely in plants, influencing their properties.



Chemical Nature

Complex polyphenolic structures defining tannin characteristics.



Pharmacological Activities

Used in traditional medicine and modern drug discovery.



Properties

Exhibit astringent, antioxidant, and antimicrobial effects.



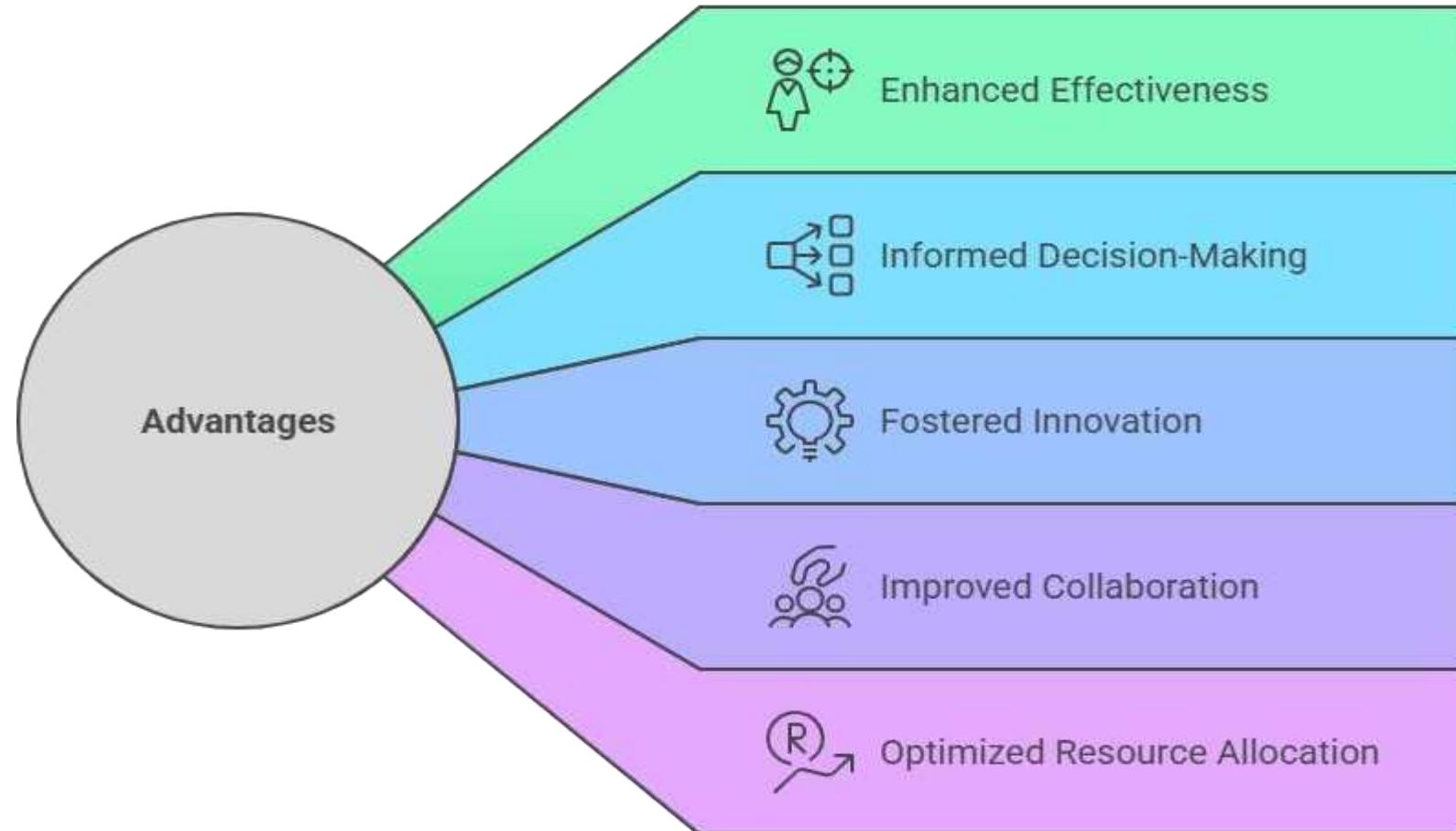
Classification

Categorized into hydrolyzable and condensed tannin types.



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Unveiling the Multifaceted Benefits of Advantages



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ASSESSMENT

Which test confirms the presence of tannins?

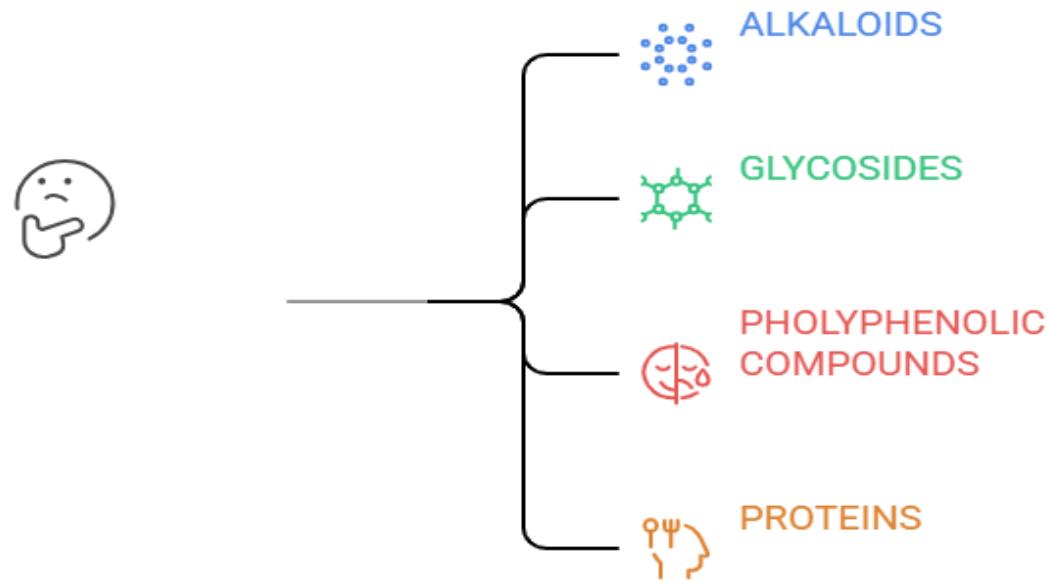


- Dragendorff's test
- Mayer's test
- Ferric chloride test
- Biuret test



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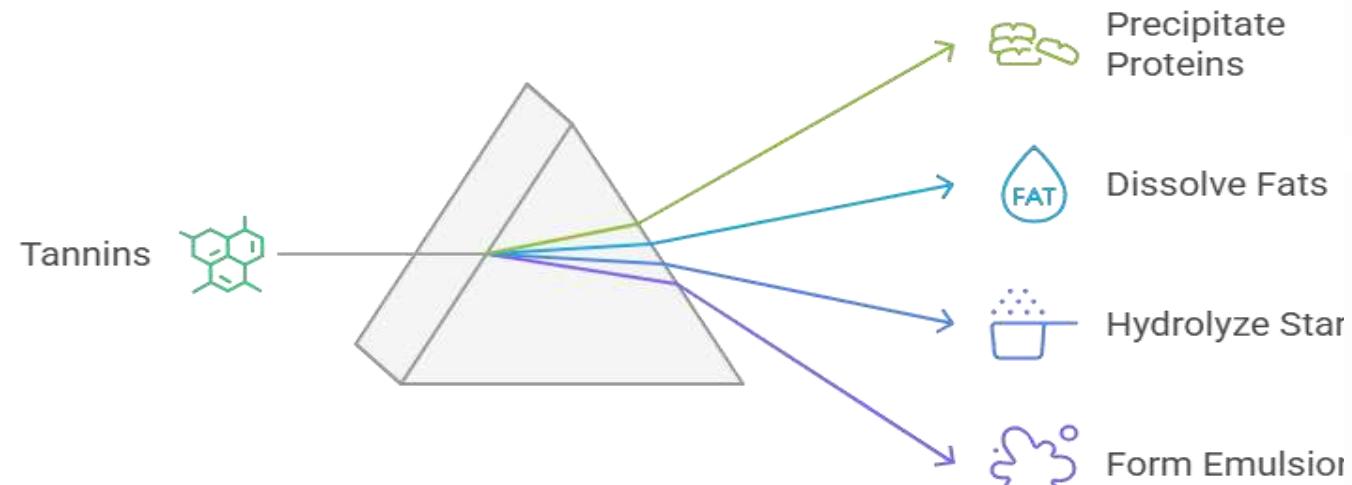
What type of compound are tannins?



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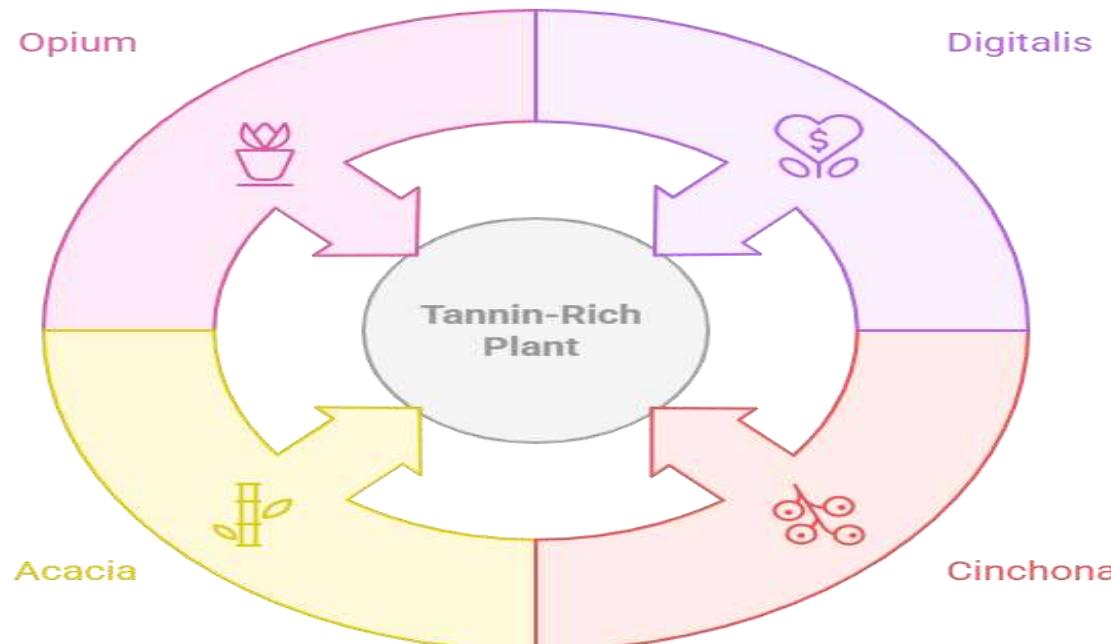
Unveiling the Multifaceted Roles of Tannins



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Identifying Tannin-Rich Plants



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Thank You