

# The Actives Factory

**Reclaiming Healthy Compounds  
From the North American Birch Tree**

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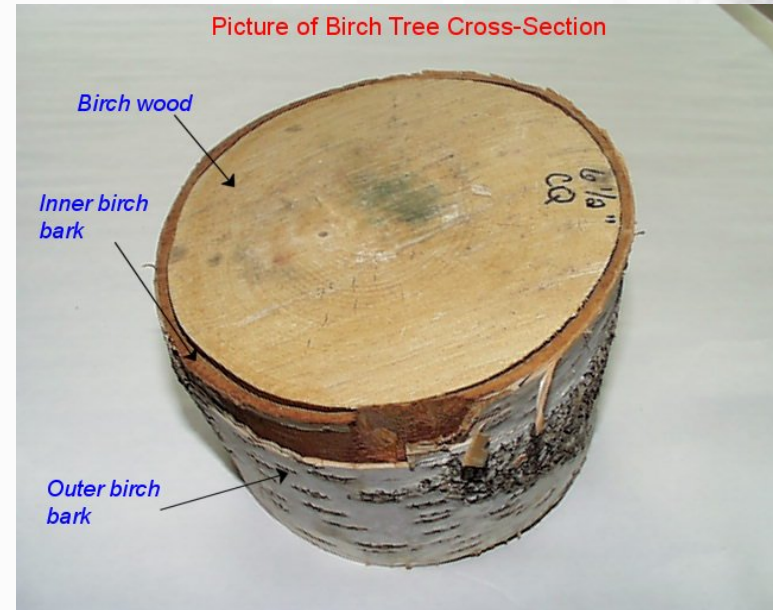


# What is in Birch Bark

The outer bark of the birch tree contains a significant amount of

- Anti inflammatory and healing Triterpenes,
- Skin repairing Suberinic Acids
- Anti Oxidant Tannins

These natural compounds can be used as dietary supplements, cosmetics, personal care products, pharmaceuticals, and agricultural applications



- Waste product from the timber industry
- Natural, organic, renewable, sustainable, traceable

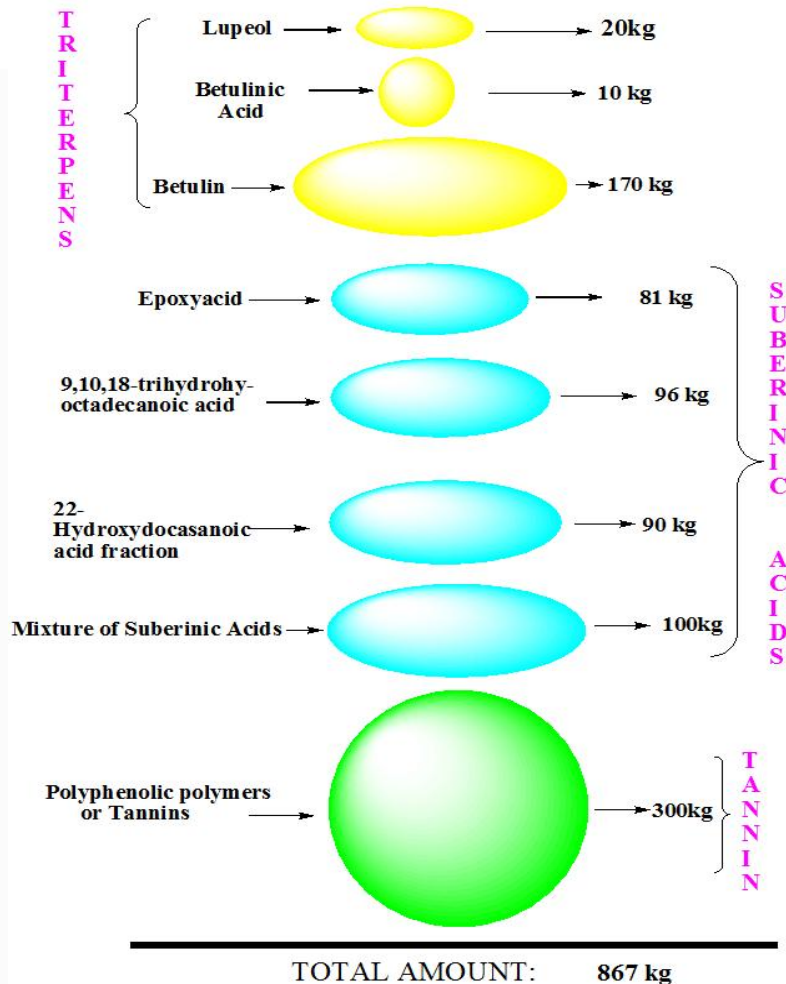
# The Outer Bark

- Outer bark a high yield source of potent compounds
- Betulin one of the first natural compounds studied (1788)
- More than 600 scientific studies, papers, trials since
- Waste product from the timber industry
- Natural, organic, renewable, sustainable, traceable



# Composition of the Outer Bark

What could be manufactured from 1000 kg of outer Birch Bark from *Betula Papyrifera* by new processing



- Triterpenes 20%
  - Pharmaceuticals
  - Dietary Supplements
  - Cosmetics
  - Antibacterial
- Suberinic Acids 35%
  - Polymers
  - Cosmetics
  - Hair care
  - Topical creams
- Tannins 30%
  - Animal Nutrition
  - Polymers



# Applications

- Triterpenes
  - Pharmaceutical
    - Extensive research on melanoma, pancreatic and prostate cancers, drug resistant HIV, tuberculosis, Herpes, and others
  - Dietary supplements
    - Cholesterol, blood pressure, diabetes, liver, immune system
  - Cosmetics
    - Anti-aging, eczema, psoriasis
  - Antibacterial, antifungal, antiviral
    - Drug resistant pathogens (MRSA, VRSA), crop protection, topical applications, personal care products
- Suberinic Acids
  - Cleansing and moisturizing
    - Soaps, shampoo, personal care products
  - Skin repair and healing
    - Burn creams, cosmetic base