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## Abstract

Succinic acid is an emerging ingredient in the skincare industry that is normally produced using petrochemical processes. Skin pHix aims to use a sustainable, apple pomace feedstock to supply 39,000 tonnes of bio-succinic acid to the global skin care manufacturing market. The proposed plant will be located in India and produce 99% pure bio-succinic acid crystals.



## Methods & Materials

The production pathway that we explored was to convert extracted sugars, such as glucose to **Succinic Acid**. This will be achieved through 5 major processing steps:

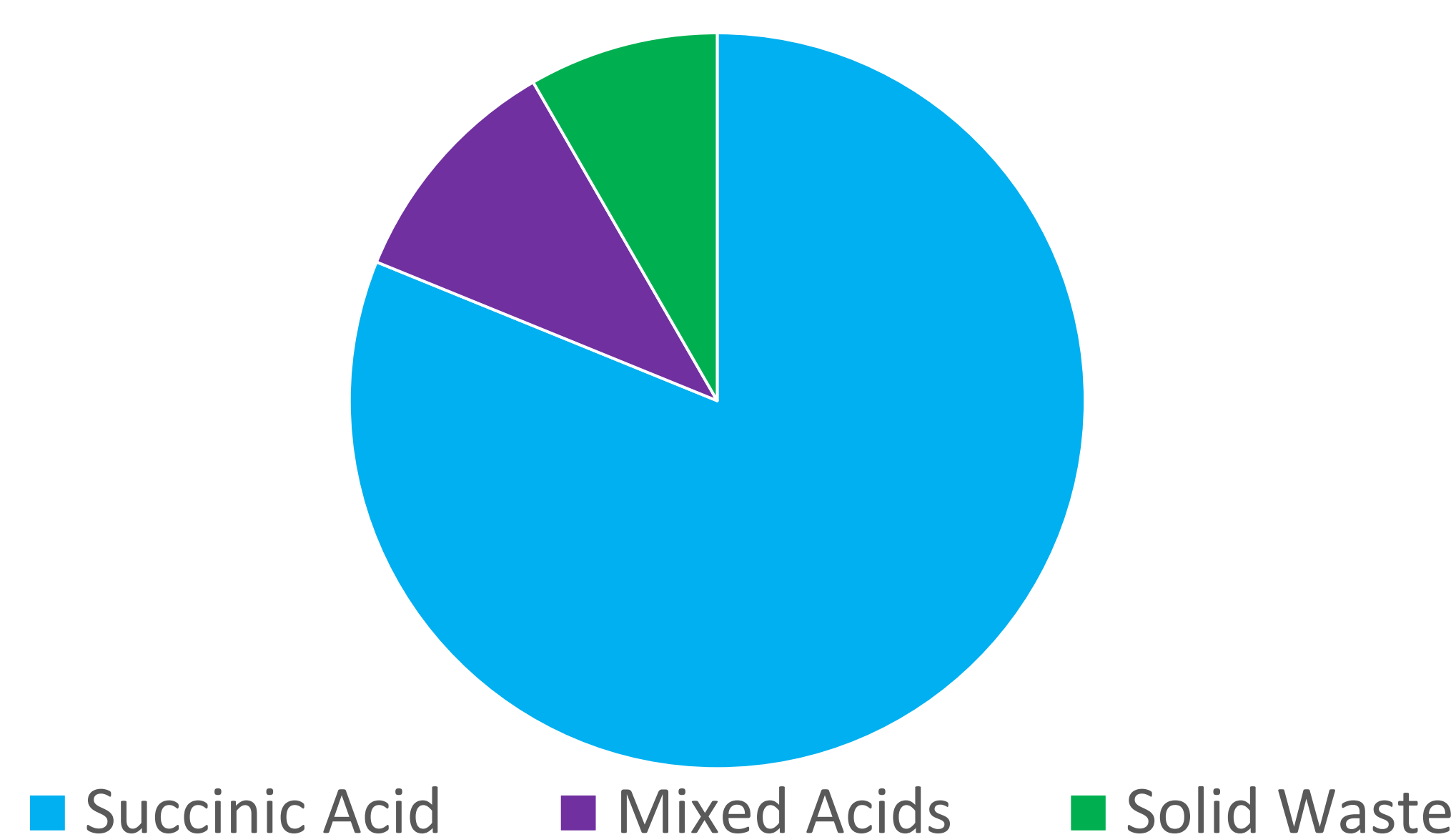
1. Enzymatic Hydrolysis
2. Bacterial Fermentation
3. Membrane Separation
4. Distillation
5. Crystallization



Various by-products are produced from the examined pathway. Some of which are value added materials, including:

- Lactic Acid
- Formic Acid
- Acetic Acid
- Organic, carbon-based solids

Revenue Source Distribution



## Safety, Environment, & Social Impact



- **Safety** considerations have been thoroughly analyzed to minimize risk throughout our plant



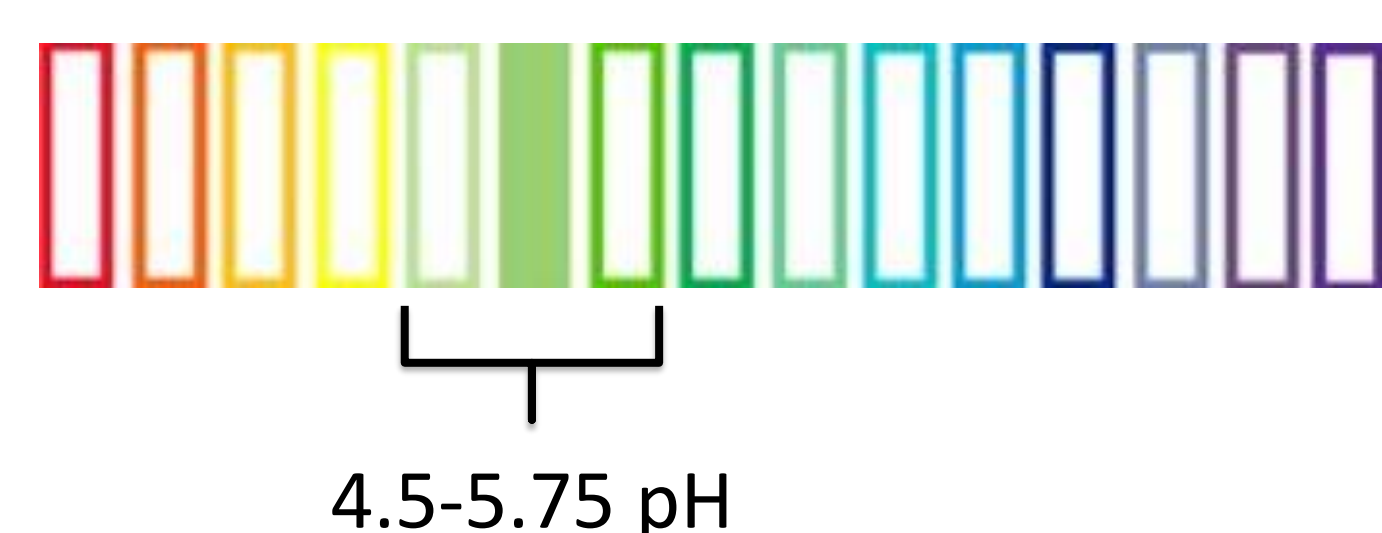
- **Sustainability** drives the Skin pHix mission to pioneer a new sector of the skincare manufacturing industry



- Positive **Social Impact** is expected from the development of the Skin pHix manufacturing plant

## Motivation

- Bio-succinic acid is proven to help in balancing **skin pH** to the optimal level which is critical for skin health.



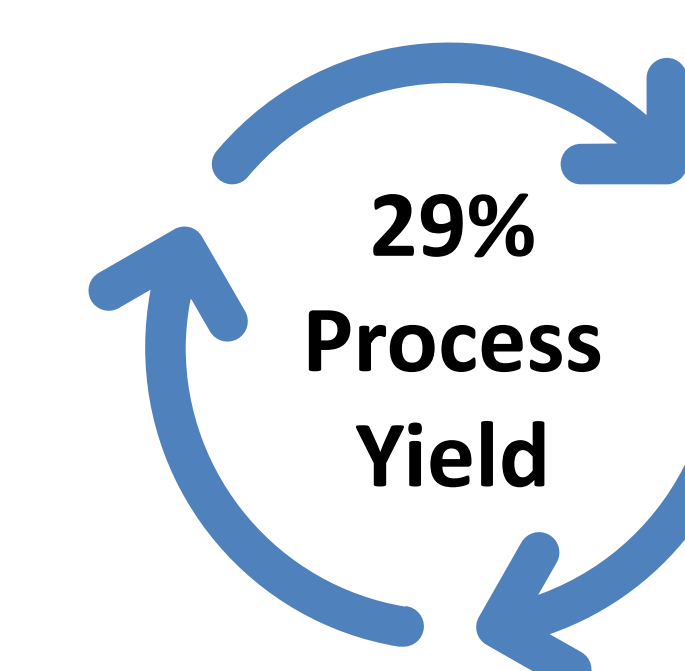
- Succinic acid targets skin conditions like acne due to its antibacterial properties and microbiome support.



- Projected global market growth and multi-industrial use.



## Results & Conclusions



## References

1. Skin pHix, 2024, "Production of Bio-Succinic Acid"
2. Skin pHix, 2024, "Bio-Succinic Acid Production Presentation"

## Contact Information

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