



Arctic nettle, from weed to money (ARKNOKK)

Stinging nettle (*Urtica dioica*) is a perennial, low-input herbaceous plant that grows wild throughout the temperate and cooler parts of the world. It thrives best in moist, nitrogen- and phosphate-rich soils. Being particularly rich in bioactive compounds, minerals and vitamins, it has been used for food, feed, medicine and cosmetics. Its silky fibres have also been used since ancient times for textiles but forgotten with cotton era.

Despite its contemporary reputation as a weed, nettle is currently experiencing a revival. It appears as an interesting **alternative crop** due to low-input requirements, little known pests and diseases, frost tolerance and resilience to drought. The project **ARKNOKK** (2020-2023) aimed at laying the foundations of a nettle value chain in Northern Finland by answering the following questions:

- Which nettle to cultivate?
- What is the best planting system in Northern Finland?
- Can nettle be used as supplementary feed for reindeer?
 - How is the Finnish nettle market evolving?
- What are the most important challenges in nettle production?





Nettle has a high cultivation potential in Northern Finland, but still faces challenges in production

Results

- Nettle thrives well in conditions of Northern Finland
- Bioactive composition did not significantly vary among nettles from different Finnish origins
- Measured annual yields were 4.6 ± 2.7 t DW/ha (shoots) with up to 4 harvests/year in Northern Finland
- Strawberry ridges with plastic mulching gave the best results
- Best accessions of *Urtica dioica* ssp *dioica* (southern nettle) and ssp *Sondeni* (northern nettle, few stinging hairs) were selected
- Nettle-supplemented winter food brings benefit to reindeer well-being

Challenges

Identified challenges for the development of the nettle production are:

- No controlled seed availability
- No commercial production of nettle seedlings
- Effective but too expensive field establishment by planting seedlings
- Limited access to post-harvest processing facilities
- Strong price competition with non-Finnish nettle
- Relying on few producers
- Limited nettle-based products and immature market

More information

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