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Alpine Space

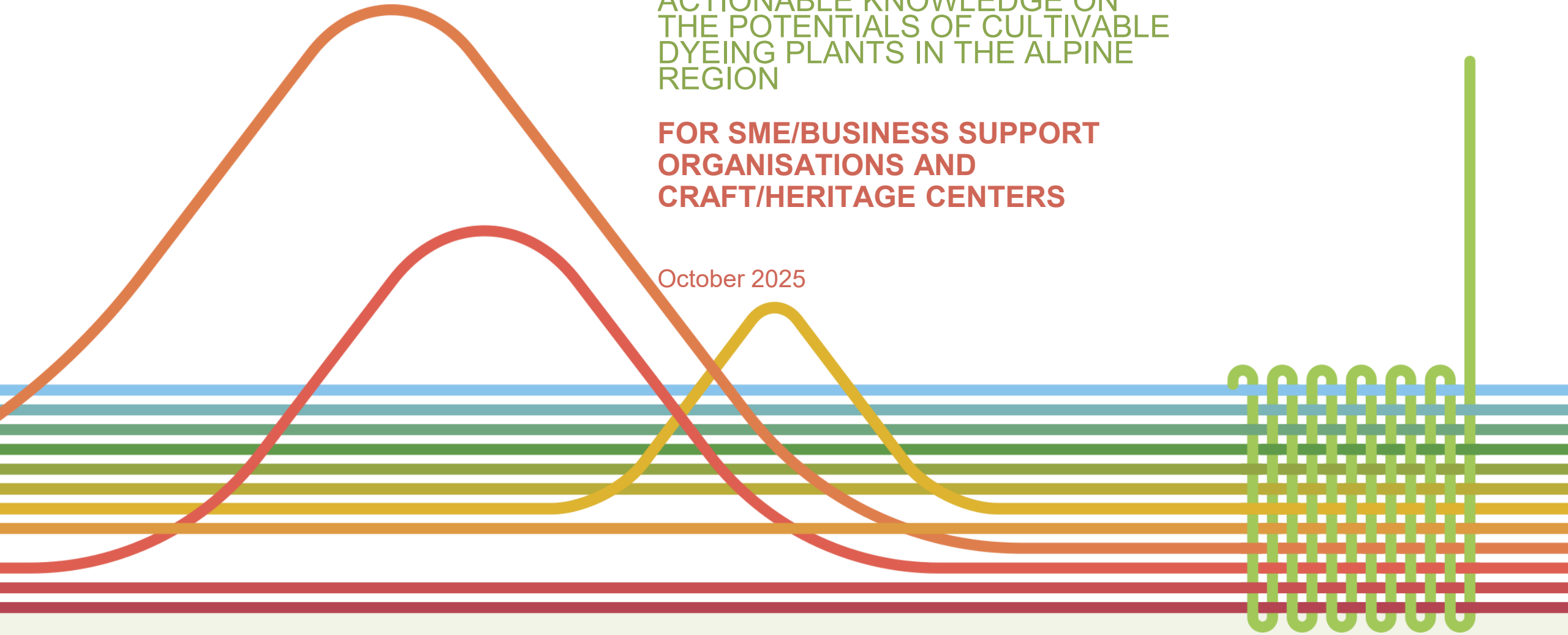
AlpTextyles

ALPTEXTYLES

ACTIONABLE KNOWLEDGE ON THE POTENTIALS OF CULTIVABLE DYEING PLANTS IN THE ALPINE REGION

FOR SME/BUSINESS SUPPORT ORGANISATIONS AND CRAFT/HERITAGE CENTERS

October 2025



SUPPORTED BY THE EUROPEAN UNION THROUGH THE INTERREG ALPINE SPACE PROGRAMME

Potential of autochthonous Alpine flora for dyeing craft and manufactured textile products

➡ Targeted to
- SMEs / business support organisations (in textiles and agriculture)
- Craft / heritage centers
- Artists / designers / students

➡ Developed & tested solutions for extracting natural colors from autochthonous and cultivable Alpine plants
- ↳ new natural tinctorial extracts produced by Mediplant and now available for costumers
- ↳ fully adaptable, customer oriented, production processes

Valorisation of local flora and plant by-products

2 autochthonous plants and 1 by-product :

- *Isatis tinctoria*, Dyer's Woad, indigo, blue
- *Alchemilla xanthochlora*, Lady's Mantle, flavonoids rich extract, yellow
- *Larix europaea*, Larch bark, condensed tannins, orange to brown
- More to come…

Tinctorial extracts produced by Mediplant

	Indigo	Lady's Mantle	Larch bark
Plant material	**Isatis tinctoria** Leaves / flowers Fresh Wild or cultivated	**Alchemilla xanthochlora/vulgaris** Aerial parts Dry Wild or cultivated	**Larix europaea/decidua** Bark By-product Dry Wild
Dye properties	Color : blue (different hues) Dry powder	Color : yellow (different hues) Liquid concentrate	Color : orange-brown (different hues) Liquid concentrate

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NATURAL DYES FROM ALPINE ORIGIN

Indigo of the Alps

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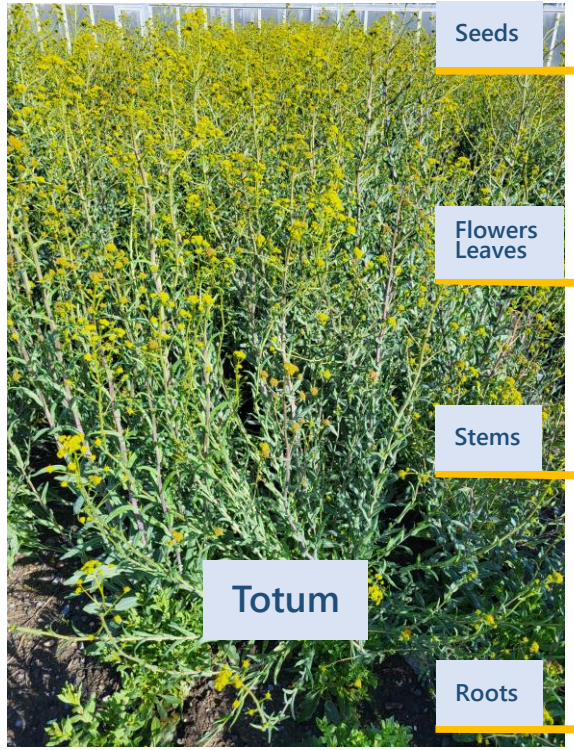
Complete productivity

Dyer's woad



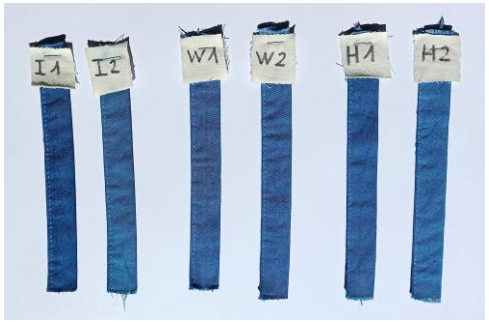
- Seeds → Oil (well-being, food...)
- Flowers, Leaves → Pigment (indigo), cosmetic ingredient
- Stems → Woody fibers (textile, paper...)
- Roots → Medicinal extract

Gathering in nature or cultivation (simple)

Radiance

100% made in Valais

Ecological process, quite long and specific
Yield 0,35%



Creates,
Is source of

- Value chains
- Collaborations, alliances, connections
- Useful production, on short- distance
- New sectors, workplaces
- Relocalisation
- Biodiversity, Agroecology
- Environmental respect
- Circularity, sustainability

...

Priority 2
Carbon neutral and resource sensitive Alpine region

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NATURAL DYES FROM ALPINE ORIGIN

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Alpine tinctorial plants:
Local, sustainable and circular supply of biosourced raw material

Lady's Mantle

→ Valorisation of the alpine flora

→ Simple cultivation, very good yield

→ Also medicinal and cosmetic interest

Gathered in nature or cultivated

Production of concentrated extract

Simple, environment-friendly and short process

Natural dyeing at semi-industrial scale

Using Natura DS

Fastness (on wool):

Laundering	Very high
Water	High
Perspiration	Good
Light	Good
Rubbing	Good

Very concentrated
Multiple recycling of dyeing bath, even after oxydation

Reasonable price

Priority 2
Carbon neutral and resource sensitive Alpine region

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NATURAL DYES FROM ALPINE ORIGIN

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Alpine tinctorial plants:
Local, sustainable and circular supply of biosourced raw material

Larch

By-product collected from forestry waste

→ Valorisation of local vegetal by-product/waste

→ Large volumes

→ Also medicinal and cosmetic interest

Production of concentrated extract

Simple, environment-friendly and short process

Natural dyeing at semi-industrial scale

Using Natura DS

Fastness (on linen):

Laundering	High
Water	Good
Perspiration	Good
Light	Good
Rubbing	Good

Very concentrated extract, can be highly diluted

Reasonable price

Priority 2
Carbon neutral and resource sensitive Alpine region

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Key figures

Natural dye	Caracteristics	Price Raw material / kg (EUR)	Qty Entering raw material	Qty dye produced	Dyeing capacity	Production process & time	Price estimation (EUR)
Indigo *(Isatis tinctoria)*	Insoluble in water -> needs to be « reduced » for fixing No mordant needed Good stability to washing	15-20 .-	**100 kg fresh plant Wild or Cultivated**	**300 g** Dry powder	**200 g Indigo (@5%) / 1 kg wool**	Quite long and specific On demand, customer oriented, confidential	**Market rates** **35.- / 50g** *FR_Polygonum tinct. (ou Persicaria)* **20.- / 100g** *IN_Indigofera tinct.*
Larch bark *(Larix europaea)*	Watersoluble Condensed tannins No mordant needed Good stability to washing Long shelf life @4°C	0-5.-	**100 kg dry bark Wild**	**10 L** Liquid concentrate	**1 L Larch / 1 kg wool** (dyeing bath may be recycled)	Simple and short	Pilot (10L) **75.- / liter** Indus (100L) **40 - 50.- / liter**
Lady's Mantle *(Alchemilla xanthochlora)*	Watersoluble Mordant needed Flavonoids rich Very good stability to washing Long shelf life @4°C	10-20.-	**5 kg dry plant Wild or cultivated**	**5 L** Liquid concentrate	**1 L Alchemilla concentrate / 1 kg wool** (dyeing bath may be recycled many times)	Simple and short	Pilot (5L) **80.- / liter** Indus (50L) **50.- / liter**

Key message
Natural dyes are living materials

Benefits / Innovation	Challenges
Ancient know-how developed into modern & « green » processes Upscalable High added-value	Price Sourcing Quality testing
Valorisation Upcycling Sustainability, circularity	Customer oriented Variability Flexibility
New dynamics Values creation Diversification Local economy	Respect for nature Convince agriculture and industry Transmission to young generations