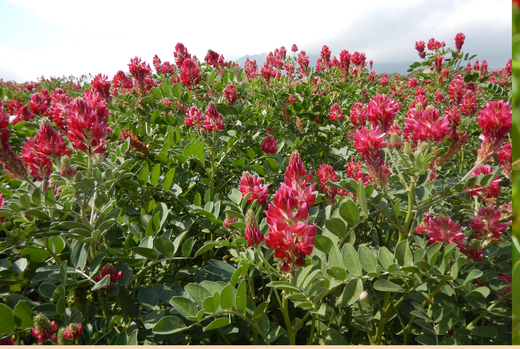

INITIATIVE ON
Accelerated Breeding

Harnessing Indigenous Forage Legume Species to Bridge Feeding Gaps and Mitigate Climate Change Impacts

- Sulla (*Hedysarum* spp.) is an exceptional legume known for its high productivity, deep root system, and palatability, making it an excellent choice for semi-arid agricultural systems.
- Various species of sulla exhibit diverse traits related to drought tolerance, allowing for customized selection based on specific needs and environmental conditions
- Enhances soil fertility and aids in erosion control.
- Offers excellent forage with high protein content.
- Highly palatable and nutritious, making it suitable for livestock methane reduction and increased productivity.

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The challenge

- Despite Tunisia's genetic biodiversity, forage legume utilization remains limited
- The rising demand for animal protein exposes the scarcity of grain and forage legumes in agro-ecosystems.
- Using well-adapted, drought-tolerant, and nutritious fodder species is vital to mitigate climate change and reduce the impact of pasture degradation on animals.

Our innovative approach

- Promote local native forage legume species for resilience in specific environments, ensuring agricultural sustainability.
- Select location-specific sulla species for optimized performance and productivity.
- Engage farmers through participatory approaches, empowering decision-making, capacity building, and access to high-quality sulla seeds, raising awareness of the benefits of valuable forage resources.

Outcomes

- Identification of indigenous forage species suitable for drought-prone areas.
- Livelihoods improved with enhanced livestock performance and lower feeding expenses.
- Ecosystem services enhanced through increased soil organic matter, and mitigated water and soil erosion.
- Increased farmers' adoption evidenced by high demand for protein-rich feed

Next steps

- Improve and enhance the quality and production of Sulla through a targeted breeding program
- Investigating the impact of environmental factors on the quality of forage species.
- Assessing the influence of maturity stage on the quality of indigenous forage species.
- Scaling up successful technologies to similar agro-ecological environments.
- Strengthening the production of indigenous forage species seed systems.

Partners

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Science for resilient livelihoods in dry areas

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