Feed pellet production for ruminants using a small-scale pelletizer and locally available agricultural products and agroindustrial by-products to replace expensive imported concentrates and reduce production costs, for agro-pastoralists (improved feed) and farmer organizations (income generation).

Compressing local agro-industrial by-products into nutrient dense livestock feed pellets is a worthwhile innovation to compete with expensive and imported feed pellets or concentrates. Use of such pellets also alleviates pressure on rangelands or grasslands. This innovation consists of a small scale compressor ‘pelletizer’ and formulas to create qualitatively sufficient feed pellets with locally available inputs. In Tunisia, there are many agro-pastoralists that are dependent on expensive and imported livestock feed pellets to improve livestock quality and to supplement feed shortages. Risks of relative feed shortages are likely to increase due to climate change. Also there are many discarded by-products from local agro-food supply chains such as olive cakes, date kernels, and downgraded dates, which still contain nutrients. Feed pellet production with this small scale pelletizer producing 500 kg pellets / hour is also an interesting income generating activity for farmer organizations and creates employment.

**INNOVATION TYPOLOGY**

This innovation is characterized as

**Technological Innovation**

Innovations of technical/material nature, including varieties/breeds; crop and livestock management practices; machines; processing technologies; big data and information systems.

The nature of this innovation is

**Incremental Innovation**

Innovations that already exist and undergo constant, steady progress and improvement.
THIS INNOVATION IS EXPECTED TO CONTRIBUTE TO THE FOLLOWING IMPACTS

CGIAR INITIATIVES, PARTNERS AND GEOSCOPE

CGIAR LEAD INITIATIVE
Livestock and Climate

PARTNERS INVOLVED
Office de l’Elevage et des Pâturages - Innovation partner
GIZ – Deutsche Gesellschaft für Internationale Zusammenarbeit - Innovation partner

CGIAR CONTRIBUTING INITIATIVE
Agroecology - Transformational Agroecology across Food, Land, and Water systems

THIS INNOVATION IS DEVELOPED, TESTED AND/OR SCALED FOR/IN THE FOLLOWING REGIONS
**ACKNOWLEDGEMENTS**

We would like to thank all Funders who support this innovation through their contributions to the CGIAR Trust Fund (https://www.cgiar.org/funders/).

**MORE INFORMATION**

**WEBSITES AND DOCUMENTATION**

- https://hdl.handle.net/10568/116751
- https://www.facebook.com/juhainaco/videos/2402457976531222

**CONTACT PERSON**

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**INNOVATION Readiness Justification**

Feed pellet production using different formula and the small scale pelletizer has been tested successfully with national partner OEP. Several pelletizers have been distributed to farmer organizations and agripreneurs to produce their own feed pellets. Monitoring of pellet business proved the benefit of this technology for farmer organizations. Detailed impact of pellets on animal growth rate still needs to be determined (in progress).

**Evidence supporting the Innovation Readiness Level**

- bit.ly/1xk76Y
- bit.ly/44K2CG

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**CITATION**