



<b>General information</b>	
PPP number	TKI-AF-16060
Title	<i>Sesame Open</i> : Unlocking the potential of organic <b>sesame</b>
Roadmap/Umbrella	
Executive knowledge institution(s)	Wageningen Food & Biobased research
Research project leader (name + e-mail address)	Paul Bartels, paul.bartels@wur.nl
Coordinator (on behalf of private parties)	Gerard Versteegh, Tradin Organic Agriculture B.V.
Government contact person	dr. P.S. Wagenmakers
Start date	January 1, 2017
End date	March 1, 2021

<b>Approval coordinator/consortium</b>	
The coordinator has assessed the annual report on behalf of the consortium:	<input checked="" type="checkbox"/> approved <input type="checkbox"/> rejected
Possible feedback on the annual report:	

<b>Short content description/aim PPS</b>
<p>The objective of this project is to build up a knowledge base and to implement innovations that supports the development of competitive, sustainable and inclusive organic sesame values and that impact on the Sesame sector in NW Ethiopia at large resulting from the sharing and scaling of innovations, practices and results.</p> <p>Together with the Sesame Business Network and local researchers development will be delivered for the best practises for the production of Sesame, the expansion of farmer-company relations, the digitising of the chain control and adding value propositions for the crops.</p> <p>Added value will also be created by structuring proteins in the Sesame cake after oil extraction in cooperation with the PPS Chickpea (AF-15286)</p>

<b>Planning and progress</b>	
Is the PPP going according to plan? <sup>1</sup>	Yes Next project year a synergy will be searched with PPS AF-15286 "Chickpea for production of proteins for inclusion into the human diet"
Have there been changes in the consortium/project partners?	no
Is there a delay and/or deferred delivery date?	No In 2018 a further detailing in the research route will be created in synergy with PPS 15286 about product development with proteins in Chickpeas and Sesame and in the agronomic improvements

<sup>1</sup> If applicable, use the explanation from the financial project report

Are there any substantive bottlenecks? Provide a brief description	no
Are there any deviations from the projected budget?	Project has been extended to March 1 2021
Do you expect a patent application to arise from this PPP?	no

**Current summary of the project for the website Kennisonline**

Sesame (*Sesamum indicum*) is a nutritious, protein rich oilseed crop. Compared to other countries in Africa, Ethiopia has a well-established sesame production zone with knowledgeable farmers and highly appreciated sesame varieties. In the past 10 years, production has rapidly increased. More than 98% of the sesame, produced in Ethiopia, is exported. Sesame is among the six crops prioritised by the Ethiopian Government.

The focus of this project is on the organic sesame value chain, organised from farms, to professional storage and handling, to hulling in Addis Ababa and export to Europe in cooperation with Dutch companies. This value chain is unique as it brings the production and market side together and collaborative relations between companies and farmers are established. This is missing for the conventional sesame which is mainly traded through the Ethiopian Commodity Exchange (ECX).

The objective of this project is to build up a knowledge base and to implement innovations that supports the development of competitive, sustainable and inclusive organic sesame values and that impact on the Sesame sector in NW Ethiopia at large resulting from the sharing and scaling of innovations, practices and results.

For further development of this organic sesame value chain additional knowledge and innovations are required for three interrelated topics in this value chain:

- Growth: Optimization of organic sesame production by application of best agricultural practises, including seed selection (genotyping), innovative mechanisation for sowing and harvesting, soil fertility management, pest and disease prevention and control for organic production, and post-harvest handling and processing.

- Chain integration: Enhanced farmer company relations, including entrepreneurial capacity development of cooperatives and the design and establishment of innovative monitoring systems at farm level and a tracking and traceability with certification and quality control for the Ethiopian sesame chain.

- Added value generation: Development of new value adding propositions, for diversification of processed sesame products and markets and also from field crop residues and waste and side streams of processing. Plant material or seed waste, also after oil extraction, can be used for new food ingredients or biobased materials.

The result of this project will be (i) the building up of a knowledge base and implementation of innovations for the development of efficient and social organic production and marketing systems in Ethiopia and (ii) creating more products of higher value for the national and international market.

This will bring economic benefits to producers of sesame seeds and other stakeholders in the chain, scientific benefits for developing new innovations and best practices for organic production and trade, and societal benefits like cash availability for small holders, organic production, new jobs, and best quality product for consumers.

**Highlights:**

This first year of the project a detailed overview has been created for the Organic Sesame chain of Selet Hulling in Ethiopia from seeding to export in quantities and activities.

Parameters for the growth of Sesame has been studied in pilot experiments.  
 The expansion of the amount farmers cooperation's and the sourcing relations with Selet Hulling have been more professionalized.  
 Tracing and information systems for small holder farmers have been reviewed and it has been decided to go on with a pilot, comparing two systems.  
 Based on the quantities of waste flows and side flows in the chain, best values for an use has been estimated on the base of an overview of alternatives.  
 In future more organic products than only hulled seed will be processed. First technical trials for the processing of Tahini and oil has been carried out.

<b>Number of delivered products in 2016</b>			
Academic articles	Reports	Articles in journals	Introductions/workshops

**Appendix: Names of the products or a link to the products on a public website**

<https://www.tradinorganic.com/organic-ingredients> for sesame seeds  
<http://www.selethulling.com/products.html> for sesame seeds  
<https://duyviswiener.com/technology-center/> for sesame processing and equipment

**Link naar Kennisonline/TKI AF:**

<https://www.wur.nl/nl/project/AF16060-Sesame-Open-1.htm>  
<http://topsectoragrifood.nl/project/sesame-open-unlocking-the-potential-of-organic-sesame/>  
<https://www.wur.nl/nl/Onderzoek-Resultaten/Onderzoeksprojecten-LNV/Expertisegebieden/kennisonline/AF16060-Sesame-Open-1.htm>

Akkoord: Hans van der Kolk (Topsectorsecretaris)