



Algemene gegevens	
PPS-nummer	AF-15286
Titel	Delivering chickpea <i>for sustainable production of proteins for inclusion into the human diet</i>
Thema	
Uitvoerende kennisinstelling(en)	WFBR; NIZO
Projectleider onderzoek (naam + emailadres)	Prof. Dr. Harry J. Wichers harry.wichers@wur.nl
Penvoerder (namens private partijen)	Mr. Jan Hak MSc (Hak & Partners) j.hak@hak-partners.nl
Contactpersoon overheid	
Werkelijke startdatum	1 July 2016
Werkelijke einddatum	30 June 2020

Goedkeuring penvoerder / consortium	
De jaarrapportage dient te worden besproken met de penvoerder/het consortium. De TKI's nemen graag kennis van evt. opmerkingen over de jaarrapportage.	
De penvoerder heeft namens het consortium de jaarrapportage	<input checked="" type="checkbox"/> goedgekeurd <input type="checkbox"/> niet goedgekeurd
Evt. opmerkingen over de jaarrapportage:	

Korte omschrijving inhoud/doel PPS
Wat is er aan de hand? Wat doet het project daaraan? Wat levert het project op? Wat is het effect hiervan?
Assessment of options for new product concepts based on chickpea, positioning chickpea as an alternative to meat and based on its superior nutritional quality.

Planning en voortgang (indien er wijzigingen zijn t.o.v. het projectplan svp toelichten)	
Loopt de PPS volgens planning?	No, the project is delayed because of reasons indicated in the 4th box of this table.
Zijn er wijzigingen in het consortium/de projectpartners?	No
Is er sprake van vertraging en/of uitgestelde opleverdatum?	Possibly applied for
Is er sprake van inhoudelijke knelpunten, geef een korte beschrijving	Currently, options for tuning the activities in this project with the project Sesam Open (AF16060) are being considered. There is considerable overlap in the consortia, and complementary activities can be developed to strengthen both projects. In the Chickpea-project, there is no specific attention for the agronomic aspects of chickpea-cultivation. Nevertheless, there is a potential interest of consortium members to have questions answered with an agronomical dimension. On the other hand, in the Sesame-project, with a

	considerable agronomic dimension, there is little attention to possible valorisation of 'sesame-cake', i.e. the left-over after oil-pressing. Connecting to the post-harvest expertise from the Chickpea-project would allow for identification of additional options for creating value-added products based on sesame.
Is er sprake van afwijkingen van het ingezette budget/de begroting? Indien financiering uit WR-capaciteit: is er sprake van NAPRO? Zo ja geef een toelichting	Research activities have been slowed down in anticipation of the co-operation with AF16060. Related to this, there is ca. k€19 of NAPRO.
Verwacht u een octrooi-aanvraag vanuit deze PPS	Unknown as per today

Highlights: geef een korte beschrijving van de belangrijkste resultaten tot nu toe
A thorough analysis is being made of the chickpea value chain, to identify optimal possibilities to define product concepts and to position chickpea as a source for nutritional proteins against a number of benchmarks. Chemical analyses have been made of raw and (according to standard procedures) processed chickpea, and preliminary work has been performed to structure chickpea protein and to analyse its digestibility and gut-health impact. A number of product concepts has been considered in co-operation with HAS-Den Bosch.

Aantal opgeleverde producten in 2017 (geef in een bijlage de titels en/of omschrijving van de producten of een link naar de producten op openbare websites)			
Wetenschappelijke artikelen	Rapporten	Artikelen in vakbladen	Inleidingen/ workshops
-	Progress report	-	-

Actuele samenvatting van het project voor de website Kennisonline
Chickpea offers distinct advantages as a source of proteins for human nutrition. Being a pulse, chickpea is relatively rich in protein. It has superior sensory properties, is produced under non-GMO-conditions, and has e.g. no drawbacks in terms of physiologically active phytohormone-like constituents, and has low allergenicity. The project addresses the assessment of options for new product concepts based on chickpea, e.g. as meat replacement, positioning chickpea-derived products as an alternative to meat and based on its superior nutritional quality. This nutritional quality is in the project defined as digestibility of chickpea-protein and of products that are based on chickpea-protein, as amino acid release upon digestion and the formation of bioactive peptides from these proteins. A thorough overview of the chickpea-production chain has been prepared, based on literature survey. Protein contents of a number of chickpea varieties have been analysed and compared to benchmark-crops. Protein structuring research and digestion research are in progress.

Bijlage: Titels van producten en links naar informatie op openbare websites

<https://www.wur.nl/en/Research-Results/kennisonline/AF-15286-Chickpea-for-production-of-proteins-for-inclusion-into-the-human-diet.htm>

<http://topsectoragrifood.nl/project/delivering-chickpea-for-sustainable-production-of-proteins-for-inclusion-into-the-human-diet/>