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Pflanzenöltechnologie
Magdeburg e.V.



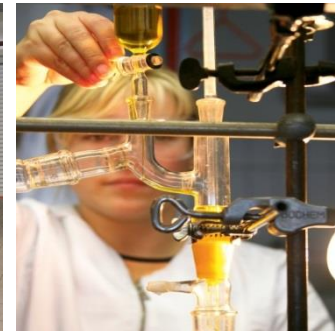
ZUSE-GEMEINSCHAFT

Favabean Protein Isolate

Production, Properties, Utilization

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Raw Material



Hull (14%)

Kernel (86%)

Substance	% (DM)
Polyphenols (Tannins)	6,7
Crude Protein	14,1
Crude Fat	1,1
Ash	3,5
Fiber (Cellulose, NDF)	80,0

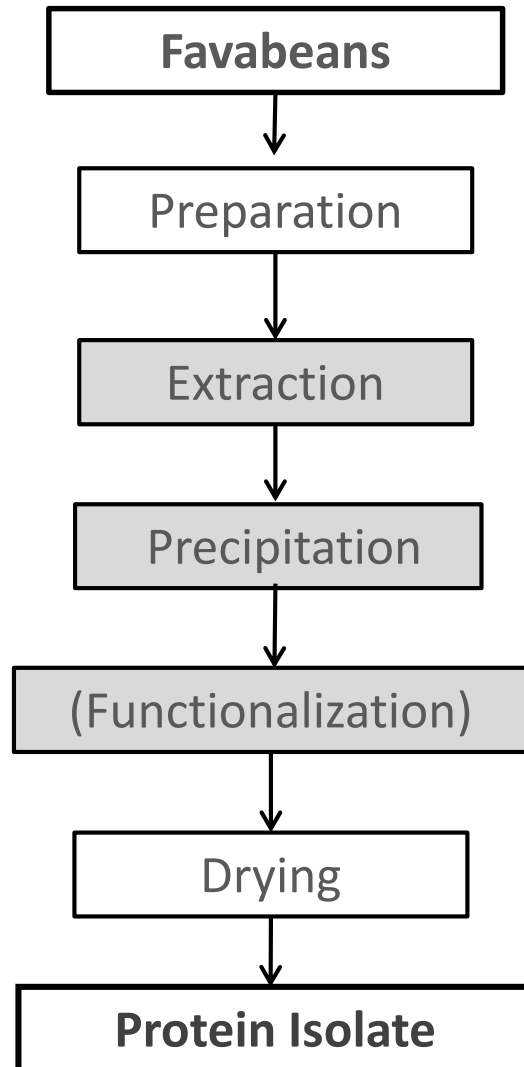
Substance	% (DM)
Ash	3,1
Crude Protein	25,6
Crude Fat	1,4
Carbohydrates: (Starch, Fiber)	70,6



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Protein Isolate Process



Isolate
(ABPI)

Protein content: >90%

Protein yield: >60%

Taste: neutral



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Properties

Protein Isolate	DM (%)	Protein (%)	Ash (%)	Oil (%)	Fiber (%)
Favabean	93,5	93,0	5,0	0,5	0,1
Soybean	92.0	90.0	> 6.0	> 0.5	n. d.
Pea	92.0	84.0	4.0	< 8.0	3.0
Lupin	n. d.	90.0	< 7.0	< 3.0	< 1.5

Favabean protein isolate:

- neutral taste and light yellow colour
- almost completely soluble at pH 7
- excellent stickiness and binding behaviour
- good emulsifying and film forming properties



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Advantages

- Plant based protein source, characterized by high protein content and well balanced amino acid profile
- Rich in secondary plant substances, minerals and fibers
- Consumption influences healthiness positively
- Regional cultivation, even as organic crop
- Non GMO
- Does not contain (known) allergenes
- Small ecological footprint
- Improves soil fertility and humification



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Utilization Examples

Fillers / animal protein substitute

- Meat products
- Milk products
- Drinks
- Sports nutrition



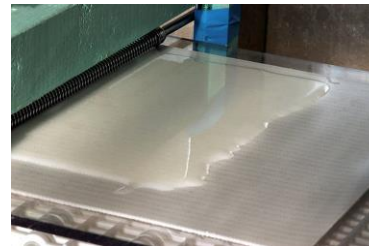
Emulsifiers and surfactants

- Mayonnaise, sauces, dressings
- Plant based drinks



Binders and coatings

- Pastries
- Edible films
- Binders for meat products



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