

Technical Specification				
Product:	Last Update:	Product Code:		
Brussel Sprouts Button 15-25mm	31/01/2020	SPR001		

PACK SIZE 1 x 10kg;

ORIGIN: Belgium

GENERAL The product shall be prepared from fresh sound raw material that is free from all toxic residues and taints and shall comply with all current UK/EU Food Legislation. The product is intended to be used as ingredient that is further processed and heat-treated before final consumption.

INGREDIENTS Brussel Sprouts 100% Declare as: Brussel Sprouts

(Brassica oleracea var. gemmifera)

PROCESSING Sprouts are mechanically harvested and delivered to the factory. Each load is sampled and assessed for foreign material and physical defects. The load is then cleaned, blanched, frozen, size graded and filled into bulk palletainers. The frozen sprouts are sampled and assessed against specification. The palletainers are then labelled and transferred to the cold store, where they are stored at -23°C until required for packing.

PACKING During packing, the brussel sprouts are inspected before weighing and filling into blue poly lined cartons. The cartons are Best Before and Production date coded, check weighed, metal detected, palletised and stretch-wrapped before being returned to store at – 18°C to await despatch.

QUALITY CONTROL Checks are carried out on the following: -

Processing: - Raw material

Final Product Temperature

Packing: - Metal detection

Check weighing

Final product physical defect levels

Organolepsis Case quantity Case sealing

Case coding and print quality

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DEFECT TOLERANCES

<u>Per 1000g</u>	Tolerance
Foreign Matter	Nil
E.V.M.	1
Loose Leaves	3
Major Blemish	2% w/w
Perforated Leaves	6% w/w
Brown Butts	10
Major Butts	5
Badly Formed	12
Internal Browning	1
Minor Blemish	10% w/w
Mechanically Damaged	12
Size >15mm; <25mm	80% w/w minimum

DEFINITIONS OF DEFECTS

Foreign Material

This includes any material neither derived from the sprout plant nor defined as EVM, such as insects, pieces of insects, wood, glass, stones, metal, sand, grit, plastic or any other material which will render the product unacceptable.

EVM

This includes any vegetable material that is derived from the sprout plant or other harmless vegetable matter such as petiole stump attached to the sprout. It does not include loose leaves or leaf fragments which have become separated from the sprout.

Loose Leaves

These are leaves or fragments of leaves which have become detached from the sprout.

Major Blemish

This includes sprouts that are blemished to the extent that the area affected is greater than 6mm in diameter, either as a single blemish or an aggregate of blemishes on the same sprout.

Perforated Leaves

These are sprouts with external leaves which have perforations caused by mechanical or insect means.

Brown Butts

Sprouts exhibiting significant brown discolouration on the cut surface of the butt.

Major Butts (see illustration)

These are sprouts with butts (or parts of butts) larger than 5mm measured from the base of first leaf. This includes ragged heels. This includes butts cut at an angle of 45°.

Badly formed (see illustration)

These are sprouts which are rosette or composed of loose leaves (blown) or where the leaves fail to meet over the head of sprout. This also includes loose-base structure and secondary grown (budding).

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Internal Browning

Sprouts with an internal brown area.

Minor Blemish

This includes sprouts that are blemished to the extent that the area affected is between 2mm and 6mm in diameter, either as a single blemish or an aggregate of blemishes on the same sprout. Blemishes less than 2mm in diameter shall be ignored.

Mechanically Damaged

This includes sprouts mechanically damaged to the extent that the sprout is partially severed to at least the centre of the sprout, or has a macerated or crushed appearance, or where more than a quarter of the sprout has been removed. This includes over-trimmed, spiky sprouts (see illustration) or yellow sprouts.

An over-trimmed sprout is one where too much base material has been cut away causing excessive loss of outer leaves.

A yellow sprout is one where more than 50% of the surface area is completely yellow in appearance.

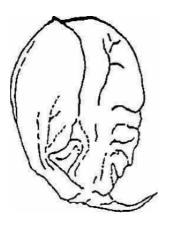
Size

This are sprouts greater than 25mm in any dimension, or less than 15mm in any dimension.

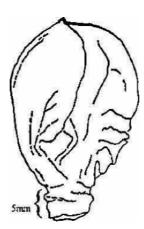
The below minimum numbers of samples should be inspected and average result to be out-of-spec.

	Minimum samples to be taken (1Kg of		
	product per each item)		
Quantity Delivered (Kg)	10Kg Boxes 20Kg Bags 25Kg Bags		
<1000	4	2	2
<2000	8	5	4
<5000	10	7	5
<10000	15	10	8
≤27000	20 15 12		

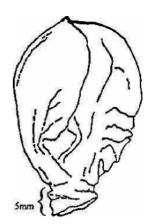
ILLUSTRATIONS OF CERTAIN DEFECTS Major Butts







Major Butt

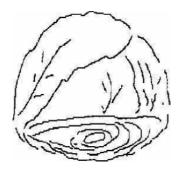


Major Butt (angled Cut)

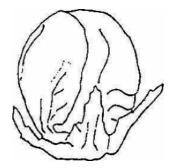
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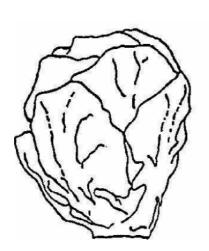


Mechanically Damaged

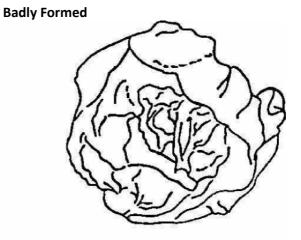


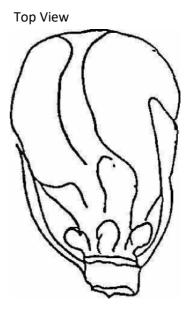


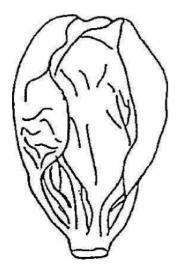




Side View







Loose Base Structure

Secondary Growth (Budding)

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ORGANOLEPSIS (Carried out on a thawed sample.)

COLOUR Fairly bright pale green but may be slightly non-uniform.

FLAVOUR Characteristic Brussels sprout flavour with only slight bitterness.

TEXTURE Tender and firm, with a yielding bite. Stalk may be slightly fibrous.



Average sample

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MICROBIOLOGICAL

Organism	Target	Maximum
T V C @ 30°C	1 x 10 ⁵	1.5 x 10 ⁶
Total Coliforms	1 x 10 ³	5 x 10 ³
E. coli	1 x 10 ¹	1 x 10 ²
Listeria mono	Absent in 25g	1 x 10 ²
Salmonella	Absent in 25g	Absent in 25g

ANALYTICAL Product shall be blanched to give a trace positive peroxidase reaction (guaiacol test) between 60 and 90 seconds.

WEIGHT CONTROL The product shall be packed to minimum weight.

METAL DETECTION All cartons shall be passed through a metal detector. The system shall be tested at least every 2 hours using ferrous, non-ferrous and stainless-steel test pieces.

BEST BEFORE DATE The product shall be twenty-four months following the month of packing. Minimum BB date on delivery: 6 months.

TRACEABILITY INFO Production date or Lot number printed on the label as well as customer order number and/or delivery date.

STORAGE CONDITIONS Keep frozen at - 18°C at all times.

CARTON LINERS Blue food grade polythene liner of a minimum thickness of 30μm.

CARTONS Corrugated fibreboard of glued construction, no metal staples to be used. Shall be sealed using blue adhesive tape.

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NUTRITIONAL INFORMATION

This data conforms to the requirements of EC Council Directive 90/496/EEC

100g of uncooked brussel sprouts typically contains: -

Parameter	Value / 100g	Methodology
Energy - kcal	42	McCance & Widdowson 6 th Edition
Energy - kJ	177	McCance & Widdowson 6 th Edition
Moisture	84.3g	McCance & Widdowson 6 th Edition
Carbohydrate	4.1g	McCance & Widdowson 6 th Edition
- as sugars	3.1g	McCance & Widdowson 6 th Edition
- as polyols	0.0g	McCance & Widdowson 6 th Edition
- as starch	0.8g	McCance & Widdowson 6 th Edition
Fat	1.4g	McCance & Widdowson 6 th Edition
- as saturates	0.3g	McCance & Widdowson 6 th Edition
- as mono unsaturates	0.1g	McCance & Widdowson 6 th Edition
- as poly unsaturates	0.7g	McCance & Widdowson 6 th Edition
Protein	3.5g	McCance & Widdowson 6 th Edition
Fibre	4.1g	McCance & Widdowson 6 th Edition
Sodium	6mg	McCance & Widdowson 6 th Edition
Vitamin A	36ug	McCance & Widdowson 6 th Edition
Vitamin B ₆	0.37mg	McCance & Widdowson 6 th Edition
Vitamin B ₁₂	0.0mg	McCance & Widdowson 6 th Edition
Vitamin C	115mg	McCance & Widdowson 6 th Edition
Vitamin D	0.0ug	McCance & Widdowson 6 th Edition
Vitamin E	1.0mg	McCance & Widdowson 6 th Edition
Thiamin	0.15mg	McCance & Widdowson 6 th Edition
Riboflavin	0.11mg	McCance & Widdowson 6 th Edition
Niacin	0.2mg	McCance & Widdowson 6 th Edition
Folic Acid	135ug	McCance & Widdowson 6 th Edition
Biotin	0.4ug	McCance & Widdowson 6 th Edition
Pantothentic Acid	1.0mg	McCance & Widdowson 6th Edition
Calcium	26mg	McCance & Widdowson 6 th Edition
Phosphorus	77mg	McCance & Widdowson 6 th Edition
Iron	0.7mg	McCance & Widdowson 6 th Edition
Magnesium	8.0mg	McCance & Widdowson 6 th Edition
Zinc	0.5mg	McCance & Widdowson 6th Edition
lodine	1.0μg	McCance & Widdowson 6 th Edition
Potassium	450mg	McCance & Widdowson 6 th Edition

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GMO DECLARATION

Does the product, or any of its ingredients contain any genetically modified material (whether viable or not)?

YES / NO

Is the product or any of its ingredients not substantially equivalent

as a consequence of the use of genetic modification? YES / NO

YES / NO

Is the product or any of its ingredients produced from, but not containing any genetically modified material?

Have genetically modified organisms been used as processing aids or additives used in connection with the production of the food or any of its ingredients?

Have genetically modified organisms been used to produce processing aids or additives but where such genetically modified organisms are not present in the processing aid as used in connection with the Production of the food or any of its ingredients?

Name: Gianluca Oberto Job Title: Technical Manager

Signature: Date: 31st January 2020

IRRADIATION POLICY

I confirm that the product supplied by Foodnet Limited under this specification has not undergone any irradiation treatment or process. I further confirm that no ingredient or processing aid used in conjunction with this product has undergone irradiation treatment.

Name: Gianluca Oberto Job Title: Technical Manager

Signature: Date: 31st January 2020

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FOOD INTOLERANCE

Food Intolerance Data	6.1. 6.11	
Does the material supplied contain ar Allergen	ny of the follow	Reason for presence if YES
Milk & Milk Derivatives	NO NO	Reason for presence ii 123
Egg & Egg Derivatives	NO NO	
Animal Products (*)	NO	
Fish/Shellfish/Crustations/Molluscs	NO	
Cereals (**)	NO	
Gluten	NO	
Yeast/Yeast Extract	NO	
Soya/Soya Derivatives		
	NO	
Fruit & Fruit Derivatives	NO	
Beef & Beef Products	NO	
Pork & Pork Products	NO	
Lamb & Lamb Products	NO	
Poultry & Poultry Products	NO	
Legumes	NO	
Peanuts	NO	
Sulphite >10ppm	NO	
MSG	NO	
BHA / BHT	NO	
Benzoates	NO	
Glutamates	NO	
Azo & Coal Tar Dyes	NO	
Added Colour	NO	
Added Flavour	NO	
Preservatives	NO	
Antioxidants	NO	
Added Salt	NO	
Nuts/Nut Oils	NO	
Caffeine	NO	
Sesame Products	NO	
Garlic	NO	
Poppy Seeds	NO	
Mustard	NO	
Celery/Celeriac	NO	
Lupins	NO	

^{*}Including any product derived from slaughtered animals, e.g. gelatine, rennet

<u>Please be aware the manufacturing sites we supply this item from may handle allergens in production.</u> Procedures are in place to prevent cross-contamination.

Is this	product	Suitable	for:
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Vegans	Yes (Not certified)	Vegetarians	Yes	Organic	No
Halal	Yes (Not certified)	Kosher	Yes (Not certified)		

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^{**}Including wheat, corn, barley, rye, oats, etc.



FOOD ADDITIVES

E. Number	Name	In Which Ingredient	Function in Ingredient	Function in Final Product	% In Final Product
None					

COSHH Data

Treat as you would any frozen material i.e. if engaged in prolonged handling of the vegetables wear gloves.

Care should be used when lifting full cases of vegetables.

Signed on behalf of Foodnet Ltd:

There are no other perceived COSHH implications regarding the use of frozen vegetables.

THE CONTENTS OF THIS SPECIFICATION ARE CONFIDENTIAL TO FOODNET LTD AND THE CUSTOMER, AND MAY NOT BE DISCLOSED TO ANY OTHER PARTY.

Name: Gianluca Oberto

Signature: Date: 31st January 2020

Signed on behalf of the Customer:

Name: Job Title:

Signature: Date:

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PROCESS INFORMATION

PROCESS FLOW CHART*

*Note: this is a generic flow chart which does not refer to any specific production site.

BRUSSELS SPROUTS

Raw Material Receipt → QA Check
\downarrow
Inspection
\downarrow
Washing
\downarrow
Blanching
\downarrow
Cooling
\downarrow
Inspection
\downarrow
Freezing $ ightarrow$ -18°C QA Check
\downarrow
Cold Storage → -23°C
\downarrow
Tipping
\downarrow
Inspection
\downarrow
Carton Fill \rightarrow QA Check
<u> </u>
Check Weigh
↓
Metal Detection
\
Palletise
↓
Cold Storage → -23ºC
V
Dispatched → -18ºC

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Issues & Amendments

Issue	Amend.	Date	Amendments	Compiled by
N° 1	N° 1	01/02/2016	New entry	G. Oberto
	<u>+</u>	01/02/2010	Defect tolerances – minimum ref samples; Reviewed BB and Traceability info. Added Storage Conditions.	d. Oberto
2	1	01/05/2017	Reviewed Food Intolerance table, Flow Chart and Amendment table.	G. Oberto
3	1	31/01/2020	3 Year update – general revision	G. Oberto

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