	<h1>Kale</h1>	
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<b>Product Description</b>	Fresh, Whole, Raw, Loose or pre-packed Kale		
<b>Technical Description</b>	Kale		
<b>Variety / varieties</b>	Best in Season (Including all varieties and types)		
<b>Carton / Pack Weight - Kg</b>	2, 2.4, 2.5, 4, 5, 6, 200		
<b>Count (Pieces / Packs per Carton)</b>	If by count: 5, 10, 12		
<b>Size</b>	Conforms to current GB/EU GMS Standards (See Ref below)		
<b>Piece weight range</b>	Conforms to current GB/EU GMS Standards (See Ref below)		
<b>Packaging Description</b>	Cardboard cartons / plastic trays with naked or bags of kale leaves.		
<b>Latin Name</b>	Brassica oleracea - var. viridis	<b>EPPO Code</b>	BRSOA
<b>GB 10 digit Commodity Code</b>	07 04 90 90 00		
<b>Delivery Temp</b>	0C to 4C	<b>Storage Temp</b>	0C to 2C
<b>Class</b>	Conforms to current GB/EU GMS Standards (See Ref below)		
<b>Labelling Requirements</b>	<p>Best practice to include: Grower GGN / RTA, field identification, packer identification, packing date, harvest date.</p> <p>Must include as a minimum: Grower identification, trace code, weight, count, name of product and complies with UK regulations.</p>		
<b>Shelf Life on Arrival at NWP</b>	6 days	<b>Shelf Life on Delivery</b>	4 days
<b>Product consumer</b>	<p>Raw fresh product intended for use as a raw ingredient for processing or for onward sale.</p> <p>Intended to be prepared (washed or cooked, etc.) before use.</p>		
<b>Intended Final Use</b>	For all ages of consumers who are eating a solid food diet		
<b>Product Variation</b>	Country of Origin (COO), pack size, weight, count and packaging may vary in order to maintain consistent supply. Changes in COO, product size and packaging format to be agreed prior to purchase.		
<b>GB/EU DEFRA Standards</b>	<p>For current GB/EU Marketing standards please visit:</p> <p><a href="https://www.gov.uk/guidance/comply-with-marketing-standards-for-fresh-fruit-and-vegetables#general-marketing-standard-gms">https://www.gov.uk/guidance/comply-with-marketing-standards-for-fresh-fruit-and-vegetables#general-marketing-standard-gms</a></p>		

## Supply Calendar:

COO X Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Netherlands	X	X	X	X	X	X					X	X
UK	X	X	X	X	X	X	X	X	X	X	X	X
Contingencies												
Spain		X	X	X	X							

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# Kale

Allergens	Contained in product?
Celery	No
Gluten	No
Crustaceans	No
Eggs	No
Fish	No
Lupin	No
Milk	No
Molluscs	No
Mustard	No
Peanuts	No
Sesame	No
Soybeans	No
Sulphur dioxide	No
Tree Nuts	No

Special Dietary Requirement	Suitability
Coeliac	Yes, free from gluten
Halal	Yes, acceptable
Kosher	Yes, acceptable
Vegetarian	Yes, acceptable
Vegan	Yes, acceptable
Lactose intolerant	Yes, acceptable
Nut allergy sufferers	Yes, acceptable
Sesame allergy sufferers	Yes, acceptable
Ovo-lactarian	Yes, acceptable

Label
<p>Example:</p> <p>Kale: 2kg  GGN 1234567891234 Field: ABCD  Packing date 234 Harvest date 185  Packer Site 125981  Trace code 2341851234-was</p>

## Microbiological Standards:

Products supplied is a fresh vegetable grown in an open environment. Whilst good practices are followed (required to be in conformance with the Global GAP and/or Red Tractor standards), crops grown in open environments can be expected to be carrying naturally occurring microflora.

The product is supplied as a raw ingredient for further processing. A suitable preparation process is needed to bring raw products into conformance with stated requirements.

Microbiological test result standards:

Listeria ssp	N.D.
Salmonella	N.D.
Presumptive Faecal Coliforms	<10
Escherichia Coli O 157	N.D.

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## Product Photos:

Loose Product External	Product Prepack External
	
	

## NUTRITIONAL INFORMATION

Group	Nutrient	Unit	Value per 100g
Proximate	Water	g	88.4
Proximate	Energy	Kcal	33

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Proximate	Energy	KJ	140
Proximate	Protein	g	3.4
Proximate	Total Lipid (fat)	g	1.6
Proximate	Carbohydrate, by difference	g	1.4
Proximate	Fiber, total dietary	g	4.1 <sup>Note 1</sup>
Proximate	Sugars, total	g	1.3
Mineral	Calcium, Ca	mg	130
Mineral	Iron, Fe	mg	1.7
Mineral	Magnesium, Mg	mg	34
Mineral	Phosphorous, P	mg	61
Mineral	Potassium, K	mg	450
Mineral	Sodium, Na	mg	43
Mineral	Salt (added)	mg	0
Mineral	Salt (equivalent)	mg	109.22 <sup>Note 2</sup>
Mineral	Zinc, Zn	mg	0.4
Vitamin	Vitamin C, Total Ascorbic acid	mg	110
Vitamin	Thiamin	mg	0.08
Vitamin	Riboflavin	mg	0.09
Vitamin	Niacin	mg	1.0
Vitamin	Vitamin B-6	mg	0.26
Vitamin	Folate	µg	120
Vitamin	Vitamin B-12	µg	0.0
Vitamin	Vitamin A, RAE	µg	241 <sup>Note 1</sup>
Vitamin	Vitamin A, IU	IU	723 <sup>Note 2</sup>
Vitamin	Vitamin E	mg	1.7
Vitamin	Vitamin D (D2 + D3)	µg	0
Vitamin	Vitamin D	IU	0.0
Vitamin	Vitamin K	µg	623
Lipids	Fatty Acids, total saturated	g	0.2
Lipids	Fatty Acids, total mono-saturated	g	0.1
Lipids	Fatty Acids, total polyunsaturated	g	0.9
Lipids	Fatty Acids, Total Trans	g	0.0
Lipids	Cholesterol	mg	0.0
Other	Caffeine	mg	0
Notes:	First source: McCance & Widdowson Composition of Food Integrated Data Set from HMGOV 2021 – Curly kale, raw Note 1: Taken from USDA food data central – Kale, raw Note 2: Calculated as 2.54 X Na content		

## Quality Characteristics

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Criteria	Accept	Improve	Reject
Size	Within specified Size range.	Isolated inconsistent sized Kale Leaf present.	Significant number of inconsistent sized Kale Leaves, out of size range or above current GB/EU GMS tolerances.
Shape	Smooth or curly shaped leaves. Typical of variety / type.	Isolated Kale Leaf with inconsistent or atypical shape present.	Numerous inconsistent or atypical shaped Kale Leaves present.
External Colour	Dark to light green in colour, with no marks or browning. Typical of variety / type.	Isolated Kale Leaf with external discoloration / browning or dark marks / spots.	Multiple Kale Leaves with significant external discolouration, dark marking and/or spots. Atypical of variety or type.
Pressure	Fresh, turgid leaves, crisp to the touch, with no wilting.	Isolated Kale Leaf with significant give or wilting.	Numerous Kale Leaves with significant give and/or are soft to the touch and/or wilting.
Dehydration	Free from dehydration and shrivel.	Isolated Kale Leaf dehydrated or shrivelled.	Significant number of Kale Leaves dehydrated and/or shrivelled.
Taste	Fresh, earthy Kale flavour. Typical of variety / type.	Isolated Kale Leaf with poor, bland or off flavour.	Multiple Kale Leaves with poor, bland, off flavour and/or foreign taint.

## Progressive Defects

Criteria	Accept	Improve	Reject
Rots and moulds	Free from rots and moulds	Isolated instance of rots or mould.	Significant instances of rots and moulds above current GB/EU DEFRA GMS Tolerances.


## Non-progressive Defects

Criteria	Accept	Improve	Reject
Foreign matter	Free from foreign material	Single instance of innocuous foreign body found.	Multiple instances of foreign material present.
Mechanical Damage	Free from mechanical damage	Isolated instance of mechanical damage present.	Multiple instances of mechanical damage present.
Scarring / Skin Blemish	Skin free from scarring, skin blemish and / or deformation	Isolated Kale leaf with scarring or leaf blemish. Does not affect shape or yield.	Multiple Kale leaves with severe scarring, spots and/or leaf blemishes present. May also affect yield.

## Packaging Defects

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Criteria	Accept	Improve	Reject
Carton / Tray	Carton / Tray sound.	Carton / Tray with some sagging or minor product damage.	Carton / Tray collapsed AND product damaged.
Bags / Packs (Where present)	Bags, packs sound and sealed.	Isolated Bag / Pack with integrity compromised.	Multiple Bags / Packs with integrity compromised.

## GMO Statement

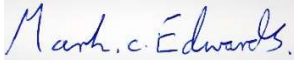
Does not contain genetically modified material.

## Pesticide Residues

Target: Free from pesticide residues

Acceptable: Pesticide residues present, below MRL in producer and destination market.

## Acceptance of Specification by supplier and customer

	Supplier	Customer
Company:	NATIONWIDE PRODUCE PLC	
Date:	25 <sup>th</sup> OCTOBER 2022	
Name:	MARK EDWARDS	
Signature:		
Position:	TECHNICAL MANAGER	

- To be signed by the customer's Director or Owner (or a Senior Manager designated as authorised to sign specification agreements) and returned to Nationwide Produce PLC.
- Specification taken as accepted if not returned by the customer within two weeks of receipt.

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