

# PRODUCT DATA SHEET

## Quinoa

<b>Botanical name</b>	Chenopodium quinoa
<b>Seeding rate</b>	For grain utilisation 100-200 seeds/m <sup>2</sup> at a thousand grain weight of 2-4 g ≈ 3-6 kg/ha
<b>Distance between rows</b>	30-50 cm (larger distance allows mechanical weeding)
<b>Sowing period</b>	When sowing for grain, from late April to mid-May
<b>Sowing depth</b>	1-2 cm, soil rolling is beneficial (it is also possible to spread the seeds only on the surface and then roll the field)



### Botany

- Family: Amaranthaceae (amaranth)
- Origin: South America, gluten-free pseudocereal is a member of the goosefoot genus and the amaranth family
- Annual fast-growing plant up to 1 metre high (C3 plant)
- Erect, succulent stem
- Large, delicate, dark green or sometimes reddish leaves and small flowers of various shades

### Climate requirements

- An extremely appealing crop even for higher altitudes
- Tolerates frost and drought very well

### Soil requirements

- Requires loose soil with good water flow to germinate
- Does not thrive on waterlogged soils
- Extremely sensitive to soil encrustation and capping as well as weed infestation at the time of shoot emergence

### Crop rotation

- Favourable preceding crops: potatoes, cereals and maize
- Unfavourable preceding crops: species that leave behind high levels of residual nitrogen

### Crop protection

- Locations with extreme weed infestation (mainly saltbush, goosefoots, etc.) should be avoided, since no herbicides have currently been approved
- Mechanical weeding during cultivation is useful when weed pressure is high; in later stages of development, quinoa closes the rows itself and suppresses weeds
- Occasionally, infestations by flea beetle, aphids, plant bugs and tortoise beetle have been observed





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## Fertilisation

- No fertilisation necessary on well-nourished soils
- N requirement value for quinoa is 120 kg N/ha for an average yield of 3,000 kg/ha wet weight (85% DM) when planted for grain; this requirement should not be exceeded as it may delay maturation
- In the event of yield differences of 2,000 or 500 kg/ha wet weight, an addition of 10 kg N/ha or a reduction of 15 kg N/ha, respectively, may be recommended
- Nutrient removal in kg/ha:

	Total N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	CaO	MgO
Grain	78	33	36	3	12
Straw	36	12	132	42	12
<b>Total</b>	<b>114</b>	<b>45</b>	<b>168</b>	<b>45</b>	<b>24</b>

## Harvest and treatment

- Harvesting takes place from around late August to mid October so that plants are as dry as possible when harvested
- Expected grain yield is approx. 500-2,000 kg/ha
- It is possible to use combine harvesters with appropriate settings for fine seeds (low threshing drum speed, narrow threshing concave, normal grain header)
- Subsequent drying of harvested crop (by 9-11%) is required immediately (max. 40 °C)
- Camera sorting machine is required for seed cleaning owing to the small grain size



**If you have questions,** please feel free to contact us!

☎ +49 2151 - 44 17 0

✉ [info@freudenberger.net](mailto:info@freudenberger.net)