



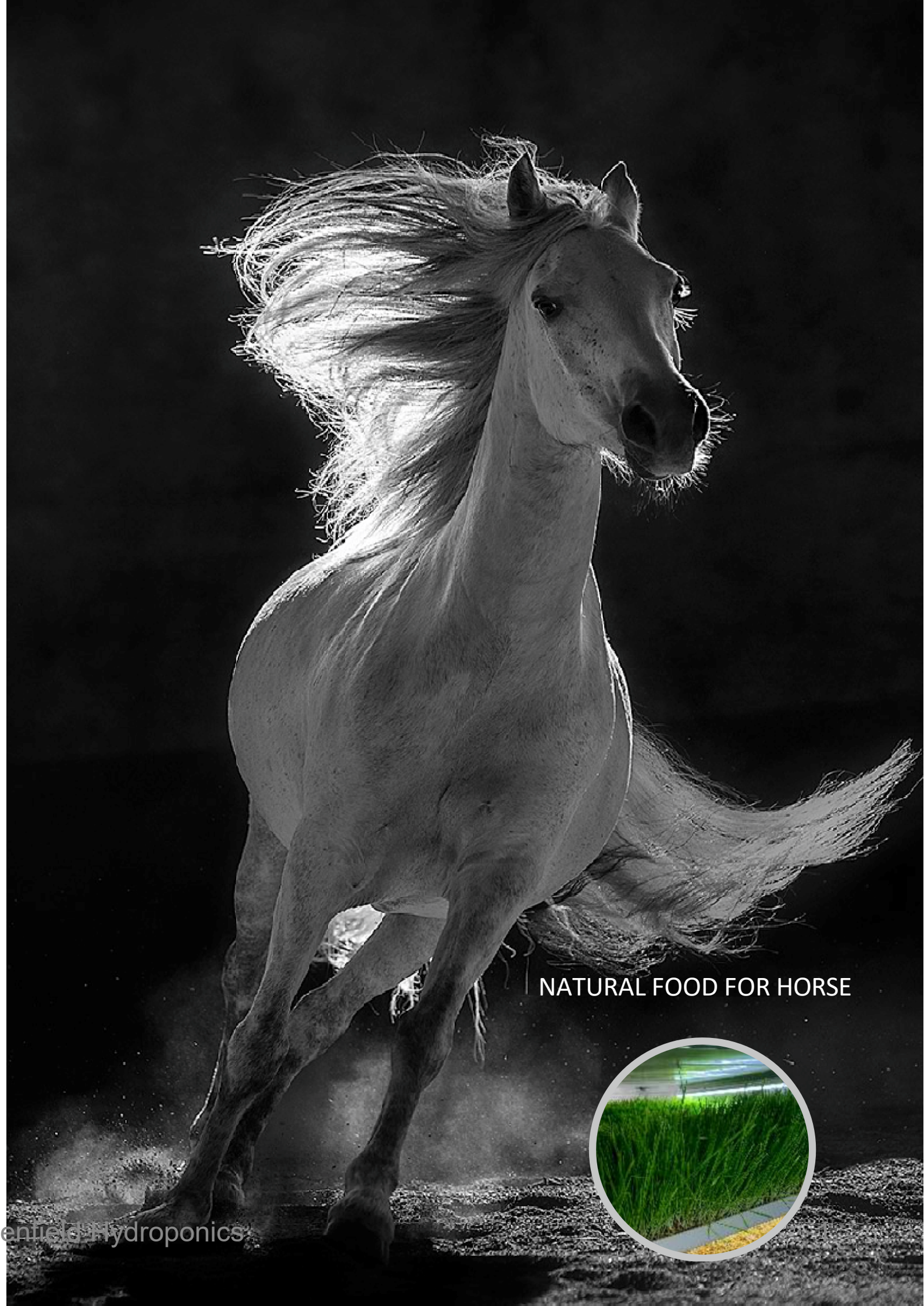
GREENFIELD HYDROPONICS GLOBAL

Turnkey System for creating Urban Organic Produce Farms

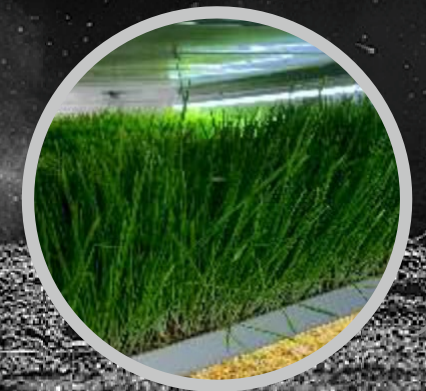


PROFESSIONAL HYDROPONIC HORSE FOODER CABINS

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NATURAL FOOD FOR HORSE



THE ULTIMATE FODDER PLATFORM

Our cultivation systems have the latest technology in cultivation in controlled environments, being very easy to operate by the user, becoming an indispensable tool for healthy and high quality feeding for horses..

Our cultivation systems were built with 3 fundamental principles

DESIGN

Our container cultivation systems are the result of years of research and development in controlled environment cultivation systems. The result of this project is a stylish, functional and easy-to-operate design.

AUTOMATIZATION

The system is basically a "smart farm", that is, it works under the principles of CEA (Controlled Environment Agriculture). This allows the user to control the system locally or remotely from a mobile phone or computer.

PERFORMANCE

Our cabins are prepared to operate in any climate and geography, without changing the planned yields in grain sowing. The user will have 365 perfect days where he will obtain forage shoots with high nutritional value, without pesticides or agrottoxins.



Comparative Cost Table: Hydroponic Fodder vs. Traditional Feed (United States)

Concept	Hydroponic Fodder (Barley)	Traditional Feed (USA)
Cost per kilogram of input (Barley/Corn)	0.20 USD/kg	0.30 USD/kg
Fresh fodder production	1 kg of barley produces 5.5 kg of hydroponic fodder	Not applicable (dry feed)
Production cost per kg of fresh fodder	0.036 USD/kg (0.20 USD/kg ÷ 5.5 kg)	0.30 USD/kg
Maximum daily ration per animal	15 kg of fresh hydroponic fodder	10-12 kg of traditional dry feed
Daily cost per animal (approx.)	0.54 USD (15 kg × 0.036 USD/kg)	3.00-3.60 USD (10-12 kg × 0.30 USD/kg)
Nutrients provided by daily ration	20-22% nutrients in 15 kg (3-3.3 kg of nutrients)	12% nutrients in 10-12 kg (1.2-1.44 kg of nutrients)
Feed digestibility	95%	60%
Effectively digested nutrients	2.85-3.14 kg (95% of nutrients)	0.72-0.864 kg (60% of nutrients)
Additional water required	No additional water required (fresh fodder)	Additional water required for digestion of dry feed
Production cycle duration	7-10 days (from seed to harvest)	Not applicable
Space and maintenance requirements	Less space (vertical cultivation racks)	More space for storage and transportation
Additional benefits	90% water savings; no fertilizers or agrochemicals needed	Higher water usage for corn and soy feed production





GDG SERIES

Hydroponic fodder production systems in controlled environments

• **No assembly required.**

All cabin units are 100% turnkey and delivered ready to use.

100% autonomous.

The client is not required to provide a building, electrical or climate control systems, only a level platform and electrical and water connections.

Scalable.

It can be sized to meet the needs of any operation, from 60 kilograms per day to 800 kilograms (depending on the grain to be germinated) per day of forage production.

Incorporates our industry-leading germination technology, labor reductions, and mold- and mildew-free forage production capabilities.

Meets our climate control standards to ensure optimal growing conditions.



REPORT OF ANALYSIS

Wet Chemistry - Dry Weight

Dairyland Laboratories 1/19/17

BARLEY

WHEAT

				SEED	3 DAYS	6 DAYS	SEED	3 DAYS	6 DAYS
DRY MATTER				86%	40%	18%	87%	44%	29%
MOISTURE				14%	60%	82%	13%	56%	71%
PROTEIN & FIBER	CP	Protein (crude)	%DM	3.44%	14.88%	17.13%	16.63%	16.48%	15.94%
	ADF	Fiber (acid detergent)	%DM	4.95%	5.88%	11.02%	3.17%	4.15%	6.41%
	aNDF	Neutral Detergent Fiber	%DM	13.74%	14.46%	22.20%	11.69%	10.53%	17.76%
	aNDFom	Neutral Detergent Fiber	%DM	3.66%	14.00%	21.84%	10.10%	10.23%	15.93%
	Fat (EE)	Crude Fat	%DM	2.23%	3.69%	2.88%	3.34%	2.25%	2%
	NFC	NonFibrous Carbohydrate	%DM	0.19%	64.90%	55.33%	70.84%	69.16%	64.12%
MINERALS		Ash	%DM	2.63%	2.53%	2.82%	1.75%	1.88%	2.01%
		Calcium	%DM	0.09%	0.12%	0.13%	0.09%	0.14%	0.11%
		Phosphorus	%DM	0.40%	0.40%	0.39%	0.41%	0.43%	0.38%
		Magnesium	%DM	0.14%	0.14%	0.18%	0.15%	0.16%	0.17%
		Potassium	%DM	0.39%	0.30%	0.42%	0.34%	0.33%	0.39%
		Sulfur	%DM	0.14%	0.15%	0.20%	0.15%	0.16%	0.18%
		Sodium	%DM	0.03%	0.03%	0.11%	0.01%	0.03%	0.04%
		Manganese	PPM	22	32	34	48	49	48
		Zinc	PPM	30	90	89	38	46	42
		Copper	PPM	1	29	17	1	7	1
		Iron	PPM	62	73	84	57	56	61
	Molybdenum	PPM	1.10	0.75	1.37	1.07	0.88	0.84	
ENERGY	TDN 1x	Total Digestible Nutrients	%DM	4.57%	79.92%	75.58%	85.84%	80.30%	77.54%
	Nel 3x	Net Energy Lactation	Mcal/cwt	88.72	83.55	78.71	90.14	83.97	80.9
	Neg	Net Energy Gain	Mcal/cwt	60.81	59.20	54.98	63.01	60.06	56.76
	Nem	Net Energy Maintenance	Mcal/cwt	90.40	88.53	83.65	92.98	89.54	85.71





GDE 60
Growings Europa
Hydroponic Fodder



GDG 60

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Smart Cabin GDG 60
60 kilograms of fresh fodder all year round

Feeding sprouts to horses

Fresh shoots grown in a Growings system offer nutritional advantages for horses.

Horses are grazing animals.

Adding fresh grass to horses helps improve their health and performance. Improved performance in racehorses Improved coat and overall appearance.

Lower feed bills Less incidence of colic and intestinal ulcers.

Lower veterinary costs more friendly and calm animals Faster recovery after exertion.



Specification	
Electricity consumption per day	10 Kw/h
Water consumption per day	30 liters
Dimensions	L x W x H : 10,24" x 3,7" x 7,87 (mtrs)
Air renewal	60 m3 / 6 hours
Air conditioning system	9000 BTU
Automated control by PLC (AI)	GGs 100



GDE 100

GDE 100

Greenfield Hydroponics
Global

GDE 100

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GDG 100

Smart Cabin GDE 100
100/120 kilograms of fresh fodder all year round



12 Horses



Tech drawings



Specification

Electricity consumption per day	30 Kw/h
Water consumption per day	50 liters
Dimensions	L x W x H : 10,24" x 7,3" x 7,87 "
Air renewal	90 m3 / 6 hours
Air conditioning system	9000 BTU
Automated control by PLC (AI)	GGs 100

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GDG 200

GDG 200

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Smart Cabin GDG 200
200/220 kilograms of fresh fodder all year round



24
Horses

Higher nutrient content:

Hydroponic fodder is grown in a controlled environment, where it is provided with the exact amount of nutrients it needs to grow optimally. This results in fodder with a higher content of protein, vitamins, minerals and digestive enzymes, which translates into better health and productivity of your horses.

Greater digestibility:

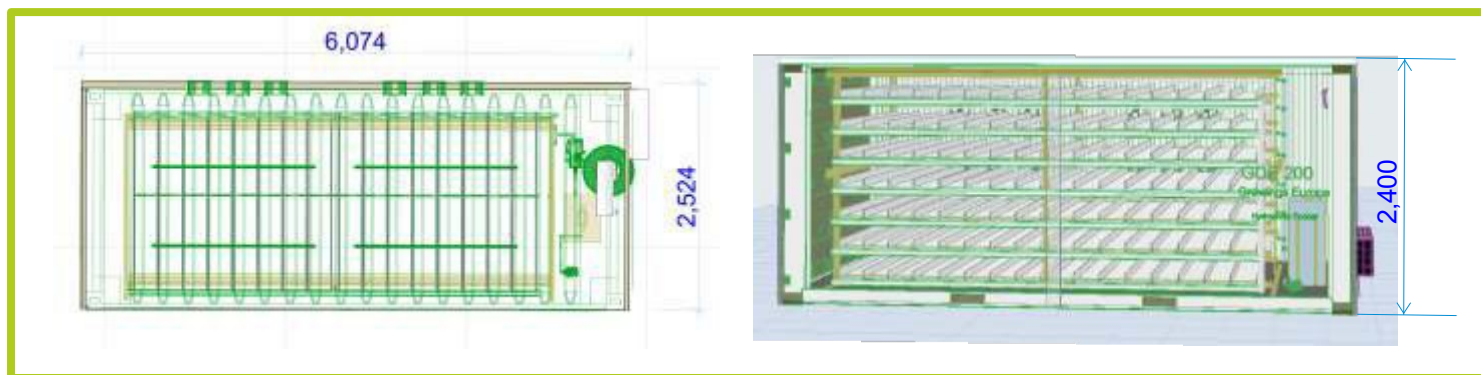
Hydroponic fodder is easier to digest than traditional fodder due to its lower lignin content. This means that animals can better absorb the nutrients from the fodder, resulting in improved growth and development.

Higher water content:

Hydroponic forage has a higher water content than traditional forages, which is important for horses health, especially in hot, dry climates.

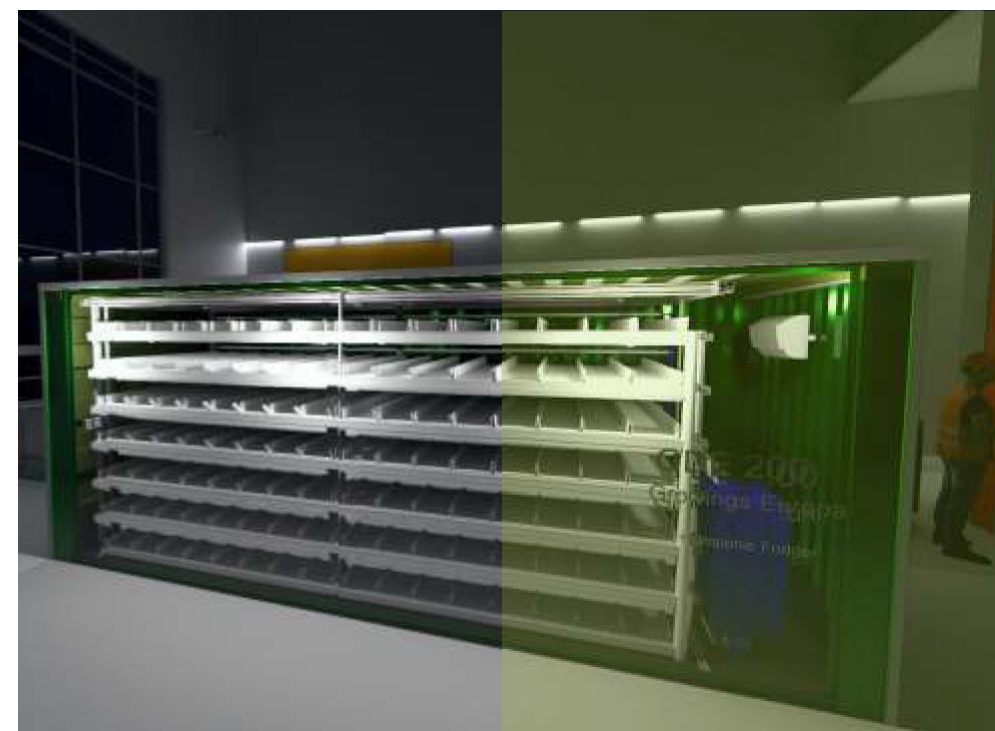


Tech drawings



Specification

Electricity consumption per day	60 Kw/h
Water consumption per day	100 liters
Dimensions	L x W x H : 19,24" x 7,3" x 7,87"
Air renewal	140 m3 / 6 hours
Air conditioning system	9000 BTU
Automated control by PLC (AI)	GGC 100





**Customized plants and projects from 1 Metric Ton to 100 MT per day.
Semi-automated systems and fully automated plants**

Professional plants for hydroponic fodder production



EQUIPMENT						
All calculations are based on Barley		Production Lbs	Horses that feeds	Cultivat Time (days)	Working Hours	Laborers
	GDG 60	132	8	7	1	1
	GDG100	220	12 - 14	7	1	1
	GDG200	440	24 - 26	7	2	1
	PLANT 1 METRIC TON	2200	130 - 135	7	4	1
	PLANT 2 METRIC TON	4400	260 - 270	7	6	1
	PLANT 3 METRIC TON	6600	520 - 530	7	6	2



PROFESSIONAL HYDROPONIC FOODER CABINS



International publications

"All specialized publications recommend the use of hydroponic green fodder; it is seen as the only viable alternative in the face of the extremely high costs of traditional horse feed. Health is not a minor concern, as an animal fed with hydroponic forage significantly improves its performance and recovery after exercise."

NATURAL FOOD FOR HORSE

