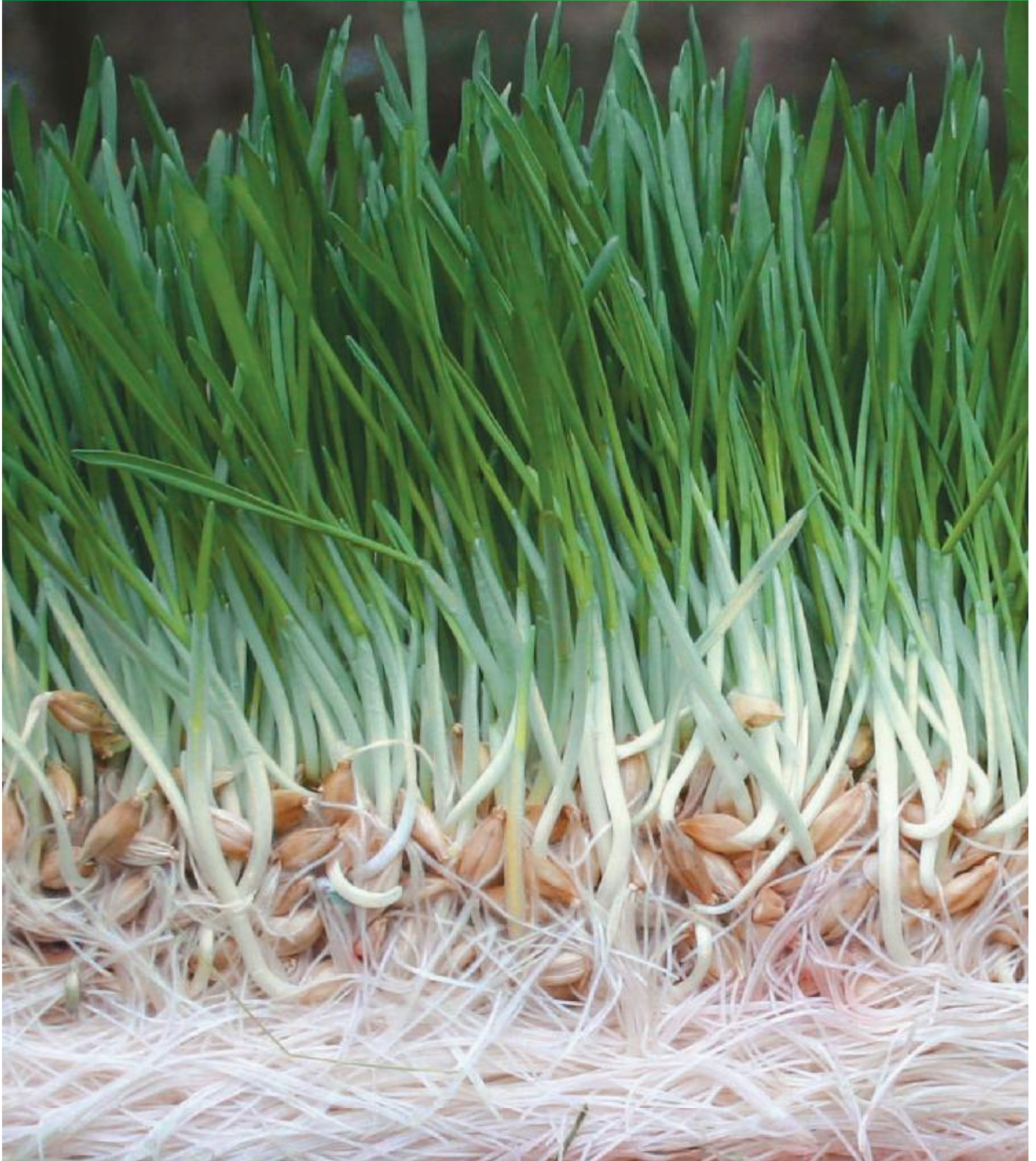




**vertical farm systems**  
*growing for the future*



# **XF SERIES AUTOMATED FODDER SYSTEMS**



# THE XF AUTOMATED FODDER SYSTEM

## YEAR ROUND FODDER PRODUCTION WITH RELIABLE QUALITY AND YIELD

The XF Series is a range of fully automated Fodder growing systems that produce fresh green feed for livestock all year round.

XF sprouted Barley Fodder can be an economically beneficial feed source for a wide range of animals including:

- Beef and Dairy Cattle
- Poultry
- Pigs
- Sheep
- Horses
- Deer
- Goats

Both small holding farmers and large commercial operators can benefit from an XF system.

### XF SERIES FEATURES

- ▶ Automatic seed, soak, grow, harvest and equipment sterilisation cycle.
- ▶ Bio-secure growing environment with automatic temperature and humidity control.
- ▶ Automated LED lighting, nutrient dispensing and watering.
- ▶ Simple intuitive touchscreen controls
- ▶ GSM text messages for low-levels of grain, nutrients or any adverse growing conditions.
- ▶ No waste with water and nutrient recycling system.
- ▶ No pesticides or herbicides required.
- ▶ Up to 1:7 yield ratio: 1 kg (2.2lb) feed grain can yield up to 7kg (15lb) of green fodder.
- ▶ Not affected by weather conditions or transport delays.
- ▶ Live microbiology nutrients eliminate mould and fungus without chemicals.
- ▶ No heavy lifting or double handling grain or fodder harvest.



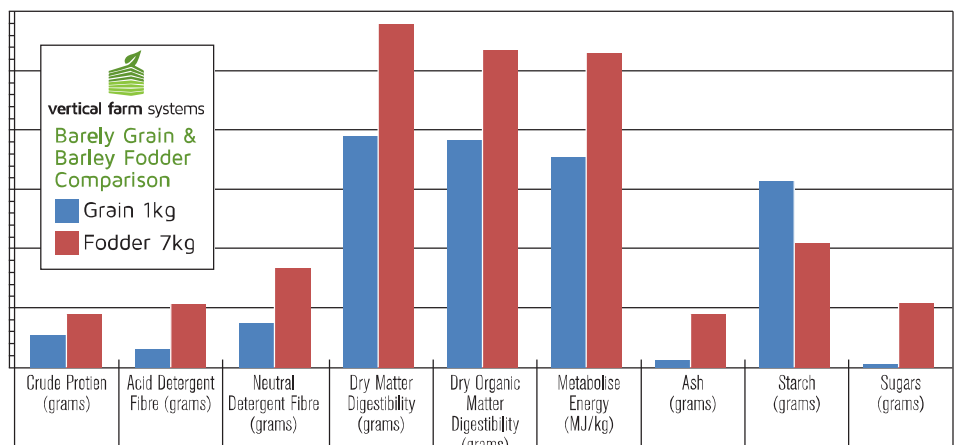
### FEED VALUE OF FRESH FODDER

Fresh Barley Fodder provides a valuable source of nutrition, particularly when pasture or costly grain supplements are of low quality or unavailable.

Commercial farmers and graziers report many benefits from feeding Barley Fodder to livestock including:

- Over 90% digestibility leading to rapid weight gain.
- Increased feed efficiency.
- Improved gut function.
- Enhanced milk production with increased volume and butterfat content.
- Better quality meat production.
- Healthier and calmer animals resulting in reduced Veterinarian costs.
- Easier weaning, earlier breeding and higher conception rates.
- Fresh food encourages livestock appetite.

Fresh Fodder benefits farmers with better returns plus it improves the wellbeing of livestock.



# VERTICAL FARMS SYSTEMS ENGINEERED FOR YOUR PROFIT

## XF SYSTEM SIZES: XF-1K and XF-2K

The XF system is available in two formats:

**XF-1K** is made up of two shipping container modules that produce up to 1000kgs (2200lbs) of clean Barley Fodder biscuits every 24 hours.

The Service Module is a CSC compliant 20' container that houses the electrical system, climate control system, 14-day grain silo, water tank, pumps and nutrients.

The Grow Module is a CSC compliant 40' Hi Cube container linked to the Service Module by quick connect flexible ducts and cable. The Grow Module is monitored and managed for temperature and humidity and fitted with 6 levels of automated growing areas incorporating watering and energy efficient LED lighting.

**XF-2K** is a modularised system for permanent undercover installation with a minimum internal clearance height of 3m (10ft).

Each XF-2K module measures approx. 5m x 12m (16ft x 40ft) and automatically produces up to 2000kgs (4400lbs) of fresh fodder every 24 hours.

With centralised grain silos and grain augers to each module the XF-2K system can be easily expanded by adding extra modules to meet the requirements of any farm or feedlot.



XF-1K



XF-1K

## GROW COST:

**Growing fodder using the XF systems is cost effective.**

To produce 1,000 kgs (2,200 lbs) of fresh fodder per day the XF system typically uses:

- Barley (feed grade): 143kgs (315 lbs)
- Power: 124kWh
- Water: 1200 L (320 US gal)



XF-2K

# FRESH BARLEY FODDER BENEFITS

## RELIABLE FEED AND IMPROVED LIVESTOCK QUALITY

### BENEFITS OF BARLEY FODDER FOR LIVESTOCK

#### Cattle – Beef & Dairy

Fodder is an economical & reliable feed supplement for cattle compared to other protein feeds which are often impacted by climate events and in turn become unavailable and expensive.

Fodder has reliable protein & essential nutrient levels giving cattle farmers more control over production and operational costs.

Fodder, like fresh pasture, offers the same benefits to cattle. Cattle are able to digest fodder easier & more efficiently than grain, this improves feed efficiency & production.

Fodder reduces the need for many expensive supplements because they occur naturally through better digestion of the amino acids.

Benefits of Barley Fodder for cattle include:

- Reduced somatic cell count
- Reduced occurrence of acidosis and mastitis
- Lowered pH in rumen reduces the chance of acidosis
- Increased digestibility
- Earlier breeding and higher conception rates
- Faster weight gain & easier weaning
- Increased longevity in dairy cows
- Higher milk production and butterfat content
- Improved hoof health
- Allows products to be sold as grass fed

#### **Suggested Feed Rate:**

Barley Fodder 8kgs (18lbs) plus 4kgs (8lbs) hay with free-choice mineral lick.

#### Sheep

Sheep are grazing herbivores. Barley Fodder allows farmers to gain control over the quality & consistency of the feed they provide giving a more balanced diet.

Barley Fodder is high in essential nutrients and is an affordable method of maintaining herds throughout the year.

Fodder is a feed source that will improve the health and longevity of both meat & fibre

animals while reducing the likelihood of parasite problems.

Benefits of Barley Fodder for sheep include:

- Improved fleece quality
- Less stress on ewes with weaning lambs
- Faster weight gain
- Reduced occurrence of ulcers due to low acidity
- Improved pH in rumen
- Improved hydration due to its high moisture
- Reduced occurrence of parasite infestation
- Improved hoof health

#### **Suggested Feed Rate:**

Barley Fodder 2.25kgs (5lbs) plus 0.3kgs (9.5lbs) concentrate feed.

#### Poultry

Commercial poultry feed is expensive compared to feeding fodder which reduces costs and improves quality of eggs and meat.

Benefits of Barley Fodder for poultry include:

- Better quality eggs with deeper yolk colour
- Enhanced egg taste
- Reduced sticky droppings
- Higher quality meat with better texture
- Improved health and energy levels

#### **Suggested Feed Rate:**

Free range: Barley Fodder 90g (3oz) plus 40g (1.5oz) mash.

Layers & broilers: Barley Fodder 40g (1.5oz) plus 90g (3oz) mash.

#### Swine

The low cost & nutritional benefit of Barley Fodder is quickly becoming recognised by the pork industry when compared to the rising cost of dry grain feeds.

Barley Fodder is high in protein and energy but is lower in starch than grains making it easier for pigs to digest and reducing the occurrence of stomach upset.

Feeding fodder results in faster weight gain and dramatically improves the quality of pork products for market.

Benefits of Barley Fodder for swine include:

- Earlier breeding
- Improved gut function
- Improved behaviour and temperament
- Faster weight gain
- Easier weaning
- Higher quality meat with better texture

#### **Suggested Feed Rate:**

Fodder 3kgs (7lbs) plus 1.5kgs (3.5lbs) commercial feed.

#### Horses

For horses fodder is an ideal highly nutritional supplement as it is naturally balanced in protein, energy & fibre.

Feeding Barley Fodder daily to horses will have a dramatic effect on their health, well-being & performance with the benefits being noticeable immediately.

Benefits of Barley Fodder for horses include:

- Less recovery time required after hard work
- Reduced instances of colic, ulcers and inflammation
- Earlier and more consistent heat cycles
- Improved hoof health
- Improved behaviour and temperament
- Higher energy levels
- Improved coat gloss and appearance
- Year round availability of consistent quality feed

#### **Suggested Feed Rate:**

Barley Fodder 7kgs (15lbs) plus 2kgs (4lbs) alfalfa hay.



**OUR COMPANY:** Founded in 2009 Vertical Farm Systems is a privately owned Australian company with a dedicated team involved in the design, development and marketing of world-class automated multi-level growing systems for the commercial production of food in all environments and locations.

#### **FOR INFORMATION:** [verticalfarms.com.au](http://verticalfarms.com.au)

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