

YOUR CHOICE, OUR COMMITMENT



Hubbard Company

- Established in 1921 in Walpole, New Hampshire, USA
- In 2022 : Headquarters in France:
 - R&D in France and the USA
 - Production centres in Europe, USA & Brazil
- Selecting and marketing breeding stock for:
 - Conventional broilers
 - Premium chickens
- Preferred supplier of slower growing breeds, focussing on:
 - Robustness, including Health and activity
 - Taste and texture
 - Good carcass conformation and yields
 - Efficiency
 - Colour (when required)

Hubbard YOUR CHOICE, OUR COMMITMENT

HUBBARD PREMIUM

the natural choice!

Main Premium concepts in Europe HUBBARD PREMIUM

the natural choice!

• Indoor Certified: e.g. BCC

- Reduced stocking density & slower growing breed
- No restriction on ADG or minimum age

• Extensive Indoor:

- Minimum age
- Reduced stocking density
- Maximum ADG (in some cases)

• 56-day free range:

- Many target weights, but minimum age
- One house day old to 56d
- Rear and move systems
- Organic (up to 70+ days):
 - Rear and move systems, ingredient use
- 81-day free range / Label Rouge



EACH CONCEPT MAY USE A DIFFERENT BREED, FEED & HOUSING

Genetics need to match the concept!

• Housing systems:

• Indoor, Covered range, Free range

• Husbandry practices:

- Enrichments
- Stocking density
- Minimum age at slaughter
- Maximum growth rate levels
- Target weight
- Organic?

• Nutrition:

- Concentrated or diluted
- Presentation (pellet, mash, crumble)
- Whole wheat feeding?
- Coccidiostats?





BCC: In brief

✓ Companies that have committed to the BCC are:

- Several large global food (service) companies, including Fast Food chains
- Several UK retailers and food companies
- Almost all French retailers and several food companies
- Other countries following as well: Germany, Scandinavia, Netherlands, Belgium, Spain, Italy, Poland,

✓ First focus will be on fresh products:

- Coming from national or regional European production
- There is also a market for frozen or cooked products (food service and fast food)

✓ UK and France are nett importing countries:

- A move to slower growth will decrease their national production capacity, exporting countries to fill this gap:
 - e.g. Netherlands, Poland for fresh products
 - Thailand, Brazil for frozen/cooked products

70

89

108

40

Better Chicken Commitment

Basic principles:



- By 2026 to meet the following requirements for 100%:
- ✓ Comply with **EU animal welfare laws & regulations**, regardless of country of production.
- ✓ Maximum stocking density of **30 kg/m2** or less. Thinning (1x) is discouraged.
- ✓ Adopt breeds that demonstrate higher welfare outcomes following the criteria of the RSPCA Broiler Breed Welfare Assessment Protocol.
- ✓ Meet improved environmental standards including:
 - At least **50 lux** of light, including **natural light**.
 - At least two metres of usable **perch space**, and two **pecking substrates**, per 1,000 birds.
 - No cages or multi-tier systems.
- ✓ Adopt controlled atmospheric stunning using inert gas or multi-phase systems, or effective electrical stunning without live inversion.
- Demonstrate compliance via third-party auditing and annual public reporting on progress.

+/- of change - sustainability

HUBBARD PREMIUM the natural choice!

- When making a change in the production system from conventional such as to ECC there are many factors where it is important to assess the benefit or disadvantage and what is acceptable to target consumers:
 - cost of production
 - welfare
 - environment: global warming, land use, acidification of seas, soya use
 - eating quality
 - safety
 - social benefit for farmers
 - biodiversity
 - antibiotic use
 - locally grown not imported



• Retailers and Foodservice makes choices too on how to invest in their business for their view on the pillars of sustainability and balance all the costs and benefits

Hubbard Premium Product Range

HUBBARD PREMIUM the natural choice!

Hubbard offers a variety of Premium females to be mated with a range of males to suit different market needs

Hubbard Premium Product Range HUBBARD PREMIUM Tailored to specific market needs HUBBARD PREMIUM thenatural choice!







REDBRO (=new/

Conventional (M77 / M99)



JA87	REDBRO (<i>=new!)</i>
Growth rate: 45-50 g/d	Growth rate: 50-55 g/d
Feather Colour:	Feather Colour:
White & some brownish	White & some brownish
Used for:	Used for:
Extensive indoor, Free	Extensive indoor, Free
Range, Organic	Range
Growth rate: 38-45 g/d	Growth rate: 45-50 g/d
Feather Colour:	Feather Colour:
Brown & some white	Brown & some white
Used for:	Used for:
Extensive indoor, Free	Extensive indoor, Free
Range, Organic	Range
	Feather Colour: White & some brownish Used for: Extensive indoor, Free Range, Organic Growth rate: 38-45 g/d Feather Colour: Brown & some white Used for: Extensive indoor, Free

Recent addition to Premium PS female range

Hubbard REDBRO:

- A complete new slower growing breeder female developed with concepts such as BCC in mind
- Filling the gap between the JA787 and conventional broilers
 - Maintaining the robustness of slower growing chickens
 → Similar welfare characteristics as JA787
 - Environmental and Economical Sustainability closer to conventional broilers
 - Based on two years of trials in the UK and France accredited in 2021 by ECC, RSPCA Assured and Red Tractor (REDBRO PS female x Conventional PS male)
- Standard Slower Growing PS Female
 - Not a dwarf breeder, but feed intake very close to ad libitum level

HUBBARD PREMIUM

the natural choice!

Main points of difference for Premium flocks



- When compared to conventional flocks the main points of difference are :
- PS Rearing: Lighting programme
 - Slow step down to a 10-12 hour day
 - Determined by whether the males are in the same house or not
 - Premium females do not need a dark period of only 8 hours it makes them very responsive to very small changes in daylength and risks very early egg production
- **PS Production:** Appetite management and behaviour
 - Synchronisation of feed increases to develop appetite and stay ahead of production
 - The females are fed to appetite and will take most of the day to consume their allocation
- **Broilers:** Because of the slower rate of growth all phases of development/transition just start later and take a little longer

Premium Breed Differences to Conventional Breeds

HUBBARD PREMIUM the natural choice!

Parent Stock



Different Lighting Program in Rearing: Slow step down light program – important for feed intake in production HUBBARD PREMIUM the natural choice! -Premium JA -Conventional **Premium breeders:** More circulatory oestrogen at older ages - advanced sexual maturity before stimulation Hours of Light 14 13 13 14 13 14 13 14 11 Age (days)

Peak feed management

HUBBARD PREMIUM the natural choice!

Ad libitum feeding

- Appetite = Feed allowance
- Actual peak feed will be more variable from flock to flock and farm to farm
- Risk of feed intake factors on actual feed and nutrient intake is high

Restricted feeding

- Appetite >> Feed allowance = 20-30% at peak?
- We allocate the nutrients
- Risk of feed intake factors on actual feed and nutrient intake is much lower

The rise to peak feed → 10 days for Success!

In the first 10 days of lay key patterns are established:

- 1 eating behaviour
- 2 nesting behaviour floor egg management
- 3 laying pattern time of day
- 4 mating behaviour

It is VERY IMPORTANT at the Onset of Lay to 'Stay ahead of the production curve'



→ INCREASE FEED RAPIDLY 3-5 g/d

- \rightarrow PEAK FEED LATEST at 60% BETTER at 50%
- → DELAY WILL REDUCE APPETITE AT PEAK

HUBBARD PREMIUM the natural choice!



Feeding Premium breeders

HUBBARD PREMIUM the natural choice!

- Different recommendations for the Hubbard Premium breeders to reflect higher production levels with lower feed consumption
- Use of traditional rations for conventional breeders can be a risk for an incorrect nutritional balance
- Recent recommendations for conventional breeders have a much altered protein and lysine balance
 - Not beneficial for the performance of the JAtype breeders



Egg mass output per kg of bodyweight of Conventional and Hubbard Premium breeders in relation to their peak feed level

Premium Breed Differences to Conventional Breeds

HUBBARD PREMIUM



Broiler Production

Key Points Slower Growth Chicken Management : The Brooding Period

GENERAL:

- Key to ensure future performance
- Good early growth is important for the development of the skeleton, physiology and immunity as well as achieving a good uniformity
- These chicks need more attention in the 1st week:
 - lower feed & water intake
 - lower growth rate & less heat production
 - (often) a lower density per m²

BEHAVIOUR:

- Periodic **social grouping** is normal during the first few days
- Do not confuse with chilling!



Husbandry

Age at change of feed form is important → adapt feed size to size of bird



Up until 300g body weight (JA757 to 12 – 14 days)





<u>Optional</u> <u>2.5mm diameter:</u> from 300 g body weight (JA757 from 12–14 days)



Nutrition

3.2mm diameter: > 400g body weight if cut short > 500g if not cut short (JA757 from 14 - 21 days)

<u>4 - 4.5mm diameter:</u> > 600g body weight (if cut short) > 800g If not cut short (JA757 – from 21 - 28 days)

Key Points Slower Growth Chicken Management : Feeding

- Give c.20 grams/chick (pre)starter feed just before arrival of the chicks on chick paper
- c.5 grams/chick should be added twice per day until end of day 2 or 3
- Ensure feed available until chicks can access the feeder
 - Can take up to a week
 - Tip every 5th pan on its side for better access
- The chicks are fed **ad lib** while brooding.



- **Don't** let the chickens empty the feeders just before the dark period:
 - this will cause agitation when the lights are switched on and can be a risk factor for skin scratches and dermatitis.

Nutrition

Key Points Slower Growth Chicken Management : Water

- Water intake is lower compared to conventional broilers
 - good hygiene of the water system is even more important
 - Slower consumption means water sits in the lines longer and becomes warmer
 - fresh water at start up
 - regular (automatic) flushing of the system
- Use of supplementary drinkers for the first 24-72 hours can be beneficial

CROP FILL TARGETS:

- 8 hours after placement: at least 80%
- 24 hours after placement: at least 96%





Husbandry

Key Points Slower Growth Chicken Management : Environment

HOUSING TEMPERATURE:

• At day 1 slightly higher ambient temperature than conventional breeds (+1 °C)

→ Targeted vent temperature is 39.5-40.5 °C

• For free range systems the ambient temperature needs to be reduced quicker

 \rightarrow target 23 °C at 21 days

CLIMATE:

- Litter will generally be dry
 - → But be aware dry litter could increase risk of skin scratches and dermatitis
- Change the ventilation profile according to:
 - the (lower) number of chickens in the house
 - the longer growing period
 - the growth curve



Key Points Slower Growth Chicken Management : Light

LIGHT:

- At placement use 50 lux
 - Reduce this in the first 7 days to the standard
 - Too high light intensity can drive the chicks to the outside walls
 - Do not confuse with over-heating !
- Where windows are used:
 - Avoid direct sunlight on the chickens!
 - Windows in the roof give a better dispersion, but cannot always be used.
 - Use windows with shutters (in the roof or side walls)
- Start from day 1 with short dark periods
 - Increase the dark period(s) to the final program at 7 days of age
- Use lights that will switch on and off slowly (dawn-to-dusk)
- Plan for lights to be on from at least 03.00h in the morning
 - The chickens will be active again during the coldest period of the day



Husbandry

Key Points Slower Growth Chicken Management : Health - Coccidiosis Field Observations

- Indoor systems (44 49d) more observations than free range
- Severe coccidiosis not commonly observed
- Check for mild subclinical coccidiosis
 → occurs at older ages (36 40 days) vs. Conventional broilers (22 - 28 days)
- Different profile of Eimeria to Conventional broilers
- Observation of:
 - Wetter litter, but not always significant
 - More flock to flock variation especially in FCR
 - Poor uniformity / downgrades in some flocks
 - Variation in pigmentation if yellow skin is required
- Have a monitor program to check status



Husbandry

General points of note



- Guides for each of Hubbard's breeds are on our website
- Guidance for specific feed rations is not, deliberately!
 - No one specific example fits all
 - Not all producers use the same breed crosses for the same requirements
 - Production systems are different
- Therefore, we prefer to liaise with each and every customer to tailor the recommendations to their own specific requirement(s)



HUSBANDRY GUIDELINES PREMIUM CHICKENS



Special technical documentation Husbandry Guidelines Premium Chickens can be downloaded from our website



PREMIUM



HUBBARD PREMIUM Working together is key to success! the natural choice! **OLD Model NEW Model** Consumer Consumer Producer Foodservice **Breeder** Food-Producer Marketing service Hubbard Retailer Welfare Farmer scheme / audit Breeder All need to be part of the project **Supply Chain** and <u>committed</u> to its success

To be continued...

HUBBARD PREMIUM





the natural choice!

HUBBARD PREMIUM



YOUR CHOICE

A RESPONSE ADAPTED TO YOUR SPECIFIC NEEDS

OUR COMMITMENT Sharing 55 years of experience in premium products

WORLD LEADER IN



YOUR CHOICE, OUR COMMITMENT

Thank you very much for your attention!







The performance data contained in this document was obtained from results and experience from our own research flocks and flocks of our customers. In no way does the data contained in this document constitute a warranty or guarantee of the same performance under different conditions of nutrition, density or physical or biological environment. In particular (but without limitation of the foregoing) we do not grant any warranties regarding the fitness for purpose, performance, use, nature or quality of the flocks. HUBBARD makes no representation as to the accuracy or completeness of the information contained in this document.