## APPENDING

## Detailed Descriptions of Business Activities and On-Site Processes

- Monkfield Nutrition Ltd supplies reptiles, reptile related products and reptile
  food to pet Shops, zoos, schools and universities across the UK and Ireland.
  For the past 10 years Monkfield has provided a 'one stop shop' service for
  everything reptile for their customers. Products are distributed via Couriers,
  Royal Mail, and on the company's own heated vans from our Church Farm
  Barn site in Wendy, Royston.
- The business is split into four main categories which include live insects for reptile food, frozen rodents and chicks, reptile equipment, and the reptiles themselves.

## **Insect Breeding**

- 3. The live insects include Banded Crickets (Gryllodes sigillatus), Black Crickets (Gryllus bimaculatus), Silent Crickets (Gryllus assimilis), locusts (Schistocerca gregaria), Fruit fly (Drosphilia), Mealworms (Tenebrio molitor), Morioworms (Zophobos morio), Waxworms (Galleria mellonella), and Earthworms (Dendrobena). All crickets, locusts and fruit fly are bred by Monkfield. All other insects are bought in either pre packed or in bulk, re packaged where appropriate, and sold on.
- 4. All insect breeding used to be on the Church Farm Barn site, but as the business has increased, Silent Crickets are now bred at Birds Pasture Farm, Boxworth, and brought back to Church Farm Barn for packing and distribution.
- 5. Insects are bred and reared in rooms of varying size containing between 60 and 200 rearing tanks. It is critical to maintain constant temperatures and humidity hence rooms are heavily insulated and all heating and ventilation systems are thermostatically controlled on an individual room basis.
- 6. The processes involved in breeding the different species of crickets are very similar and involve the following steps.
  - a) Around 5,000 adult crickets, reared by Monkfield, are placed in a plastic tank measuring 800x600x600mm.
  - b) Egg trays are then stacked together to create perching space giving the crickets areas to climb and hide, and a seed tray filled with moist peat is added.
  - c) Crickets lay eggs into the peat.
  - d) The seed trays are changed every 2 days. The adult crickets will lay productively for around 2 weeks. After this period a new tank will be set up with new adult crickets to start the process again.
  - e) Once removed, seed trays are covered in bubble wrap to maintain moisture, and stacked in the same room to incubate at the ambient room temperature. The eggs take between 7 and 9 days to hatch. Just before they are about to hatch the seed tray is placed into a small plastic container.

- f) As the eggs hatch, the hatchlings are removed from the container on a daily basis, and a measured amount of crickets (usually between 40 and 80ml depending on what size the crickets will be sold at) are placed into plastic tanks again with stacked egg tray for perching space. They will remain in these tanks until sold, or used to continue the onsite breeding process.
- g) All crickets are fed on a high protein, cereal based dry pellet feed and get their moisture from soaked peat.
- 7. The crickets are sold at various sizes, and generally reach adult size at about 5 weeks of age when kept at a temperature of 30C. Depending on species and the size they are sold at, each tank will produce between 3,000 and 15,000 crickets. They are packed into small ventilated plastic tubs, polypropylene bags or boxes, depending on the customer preference.
- 8. Monkfield originally adopted this breeding method at their original premises in Bourn, and have continued with this method ever since on the site at Church Farm Barn, Wendy. Whilst we always aim to improve efficiencies and yield by slightly altering feed / temperatures / laying mediums / volumes of insects placed in tanks etc the overall principles have remained the same. We currently produce around 2 to 2.5 million crickets a week from the Church Farm Barn site, and a further 1 to 1.5 million at our site in Boxworth.
- 9. Locusts are bred slightly differently and the process is set out below.
  - a) Around 600 adults are placed in a breeding cage measuring 550x550x700mm with a spot bulb.
  - b) An egg pot in the form of a plastic container filled with peat is provided. Eggs are laid deep into the peat, and the pots are changed daily.
  - c) After eight days between 1 and 3 pots are placed straight into a plastic tank, again with egg tray, and hatchlings hatch straight into the tank.
  - d) Locusts produced for sale will remain in this tank until sold. They are held at a temperature of 35C and will reach adult size in 25 days, but most are sold before they reach adult size at around 14 to 18 days. Yields will vary between 1,000 and 3,000 locusts per tank.
  - e) The breeder replacements will remain in this tank for a week before getting split down into new tanks. These are set up with a small heat pad while the background room temperature is reduced to around 30C. They will remain in these tanks until being transferred into the breeding containers. All locusts are fed on fresh greens, mainly Kale and Spring Greens, and a dry cereal based mash more commonly used for poultry. All moisture is derived from the greens.
  - 10. We sell between 700,000 and 800,000 locusts per week, and they are packed by number into small plastic tubs, polypropylene bags and cardboard boxes, again depending on customer preference.
  - 11. Over the past 10 years changes have been made to our locust rearing systems to increase efficiency, but this has been no more than fine tuning, to include altering temperatures and ventilation, changing feed etc hence again the overall principles have remained the same.

#### **Frozen Animal Products**

- 12. For over 10 years Monkfield Nutrition Ltd have supplied frozen animal products from its site at Church Farm Barn, Wendy. These include Rats, Mice, Chicks, Quail, Rabbits, Hamsters, Gerbils and Guinea Pigs.
- 13. Most Rats and Mice are sourced from a breeding farm in Lithuania, and delivered to the site on a monthly basis, already frozen and pre packaged. They are stored in large walk in freezers on site. All other frozen products are sourced from either European or UK suppliers, and again delivered frozen.
- 14. Most frozen products are sold in the packaging it arrives in, but some packs are broken down and re packaged into smaller packs, according to differing customer requirements. All frozen products are distributed in polystyrene boxes with dry ice, or large freezer boxes again with dry ice, either on our own vans or by courier. Over a 10 year period there have been no changes to the way in which Frozen products are handled or distributed.
- 15. Our freezers and traceability records are regularly checked by DEFRA, and we hold a Category 2 Animal By Products Licence.

## **Dry Goods / Reptile Equipment**

- 16. Monkfield Nutrition Ltd has been wholesaling reptile equipment from its site at Church Farm Barn, Wendy since 2003. Products are sourced from UK and Overseas manufacturers and distributors and fall into the following categories:
  - Housing Wooden, glass and plastic vivariums for reptiles.
  - Heating and Lighting Heat bulbs, heat mats, thermostats, light fittings, LED lights, and specialist UV emitting bulbs designed specifically for reptiles.
  - Décor Plastic plants, natural vines and wood, vivarium backgrounds.
  - Reptile Bedding Various bark chips, coco fibre, moss, grass pellets.
  - Hides Natural and artificial hides and caves.
  - Feeding Accessories Feeding bowls, tongues.
  - Water Accessories Water bowls, misting systems, artificial waterfalls, pumps, water conditioners.
  - Dried and Tinned Food Dried diets for a range of reptiles.
  - Supplements A whole range of supplements for reptile health.
  - Health and Hygiene Disinfectants, Hand Cleaners, Mite sprays and wound treatments.
  - Books A range of educational books for prospective reptile owners.
  - Incubation Incubators and egg laying medium.
- 17. Products are picked and packed into orders and distributed by Monkfield's own vans, royal mail and courier.
- 18. Over the past 10 years new products have been sourced and old ones discontinued, but the principles of buying products in and re selling them have not changed.

# Reptiles, wholesale supply and breeding

- 19. Monkfield Nutrition Ltd began both wholesaling and breeding reptiles and amphibians for sale to the pet trade from its site at Church Farm Barn, Wendy in 2003. Availability of different reptiles changes weekly, and every week Monkfield circulates stock lists to shops via email. The number of species are too numerous to mention, but they are all non venomous, and suitable for the general pet trade. Reptiles that are wholesaled are sourced from UK breeders and overseas suppliers.
- 20. They fall into 6 main categories:
  - Lizards
  - Snakes
  - **Amphibians**
  - Tortoises and Turtles
  - Arachnids
  - Invertebrates
- 21. Animals brought into the site would be housed in vivariums to suit the specific needs of the species, usually for at least a week to check that they are healthy and feeding, before being re distributed to customers, mainly on our own vehicles but also by courier.
- 22. Monkfield Nutrition breed the more popular species of reptiles. These include Bearded Dragons, Leopard Geckos, Corn Snakes, King Snakes and Milk Snakes, Royal Pythons and Yemen Chameleons. In 2004 a second site in Wendy was purchased, called Sunavon, and a large proportion of the breeding was moved to there, but Leopard Geckos and Royal Pythons are still bred on the Church Farm Barn site. The different species of reptiles have very different breeding methods and housing requirements but all follow the following rules.
  - Kept either individually or in small groups.
  - Males usually rotated between groups.
  - Females lay eggs into a provided egg laying medium.
  - Eggs placed into incubators. Incubation times depend on species, and in the case of Chameleons, can be as long as 6 months.
  - Babies again housed in small groups and grown on to be either sold, or used for replacement breeders.
  - 23. The principles behind keeping and breeding reptiles have not changed over the past 10 years. Equipment has improved, with better UV lighting becoming available on the market, which has had benefits to reptile health and breeding performance.

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