



Tumblebug Mushroom Farms

Grow Your Farm,
Your Way.



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Welcome to a New Kind of Farming

At Tumblebug, we believe farming should feel hopeful again. That's why we are delivering a low risk, versatile, small footprint, all year round revenue generating ready-to-grow Mushroom Farm System designed for farmers and landowners who are ready to diversify and thrive.

Our mission? To make it easy, sustainable, and profitable for you to grow gourmet mushrooms — turning waste streams into income streams — and farming into a year-round opportunity.

But here's the thing: this isn't a one-size-fits-all formula. The beauty of the Tumblebug Mushroom Farm model is that it flexes to fit your goals, your land, and your level of input. We're not making lofty promises — we're giving you the tools, the knowledge, and the opportunity to shape your own success. Whether you're looking for a side hustle or a full-scale farming venture, the returns are in your hands. The more you put in, the more you stand to gain. This is about transparency, potential, and putting you in control. It's your farm, your way.



Why Invest in a Mushroom Farm?

A Market on the Rise

- The global gourmet mushroom market is thriving, with a projected CAGR of **9.7% through 2030**.
- Mushrooms like **King Oyster** and **Lion's Mane** are in growing demand from chefs, health-conscious shoppers, and vegan consumers.
- The vegan food market is booming, with a **56% increase in vegan orders in 2024 alone**.

High Profit Potential, Low Input Costs

- King Oyster mushrooms can deliver **profit margins of 48–60%**, and Lion's Mane ranges from **44–58%**, dependent upon your growing model.
- Thanks to the use of **organic waste substrates** and efficient container systems, setup and operational costs remain comparatively low.
- Multiple harvests per month support strong, recurring revenue opportunities.

Sustainable, Smart Farming

- Grows on coffee grounds, sawdust, and other low-cost agricultural by-products.
- Spent substrate can be recycled into compost or converted to biochar for added value.
- Minimal land requirements and controlled environments make production **scalable, weatherproof, and resilient** — start small and grow at your own pace.

[!\[\]\(faf942dc3e59ce8eb64b4ac481eca7e0_img.jpg\) The Health Benefits of Mushrooms for Immune Function and Heart Health - **BBC News**](#)



Profit Margins

- King Oyster: 48-60%
- Lion's Mane: 44-58%



Low Input Costs

- Minimal Energy Costs
- Uses waste as raw material, reducing spend.



Growing Market

- 56% rise in Vegan Orders (2024)
- Global gourmet mushroom market: 9.7% CAGR

Get Growing: Start with Confidence

What to expect before you begin

Before you commit, we guide you through a structured feasibility assessment to ensure mushroom farming fits your goals, your site, and your resources.

Together, we'll explore four key stages:

DISCOVER

- Substrate sourcing: Find reliable sources for coffee grounds, sawdust, or other organic waste. Plan blend of ready to fruit blocks.
- Permissions & planning: Identify your Local Authority EHO, confirm your site's planning status.

DEFINE

- Your customer base: Will you sell to restaurants, markets, shops — or all of the above?
- Mushroom types & volumes: Tailor production to match your customers' preferences.
- Labour & operations: Decide who'll run the farm and build that into your plan.

DEVELOP

- Site visit & checklist: We assess site suitability.
- Business model matching: based on your ambition and capacity.
- Training & documentation: hands-on training and start building your custom operating procedures.
- Contract & deposit: We formalise your project plan and get everything ready to begin.

PREPARE TO DELIVER

- We schedule equipment orders and delivery. Your system could be on-site in as little as 6 weeks, ready to grow within 12 weeks.
- You'll receive a step-by-step setup timeline and support to get growing with confidence.



Inside the Tumblebug Mushroom System



Your farm-in-a-box: Three fully-kitted, insulated 40ft containers, ready to go.

Mush Room 1 – Inoculation Space (Mixing Room)

Substrate Ecobot prep, lab equipment, spawn mixing — all clean, efficient, and protected.

Mush Room 2 – Incubation Space (Growing Room)

22 incubation bays, optimal conditions for strong mycelium growth.

Mush Room 3 – Fruiting Room (Harvest Room)

Temperature, CO₂, humidity all automatically controlled from a single system with remote online control.

All backed by full installation, servicing, systems documentation, and mycology consultancy from our partners which includes spawn supply if required.



Business Models that Fit your Goals

Sell Direct or Wholesale: It's Your Business

Whether you're supplying local chefs, selling at farmer's markets, creating dried mushroom products, or selling grow kits online, mushrooms offer flexible and scalable income streams. Our system supports both B2B and B2C models, so you can tailor your farm to match your goals.

Your Farm, Your Way.

B2B Models	B2C Models
Supply high-end restaurants, hotels, and farm shops with fresh gourmet mushrooms.	Sell directly at farmer's markets or through subscription boxes
Build long-term supply relationships and sell at wholesale rates.	Create your own branded grow kits — perfect for home cooks, schools, or gift shops.
Identify food manufacturers who use gourmet mushrooms in sauces, foods and plant based alternatives.	Explore value-added products like dried mushrooms or powders.



Your Farm, Your Way.

The Tumblebug Process: Step-by-Step Guide to Your Mushroom Farm.

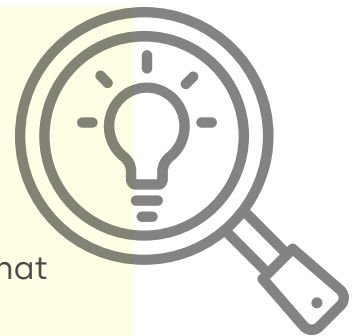
We make it simple to start smart. Here's how we guide you every step of the way — from idea to harvest — in four simple stages:

Discover

What's available and what's possible?

Start by exploring the key ingredients and permissions that shape your setup:

- **Find your substrate mix:** Identify local sources for spent coffee grounds and sawdust. These are the backbone of your growing medium — and a major sustainability win.
- **Check permissions:** Register with your Local Environmental Health Department to identify planning requirements, and schedule your inspection.
- **Carry out your FSA Level 3 training** - a pre-requisite for managers of food production units.
- **Assess your context:** Every site is different. Tumblebug will help you explore how our model can work for your location.



Define

Who are you growing for?

It's time to shape your vision into a business:

- **Understand your market:** Will you sell fresh or dried mushrooms, or both? Will you sell to restaurants, farm shops, or at farmer's markets?
- **Choose your mushrooms:** The species you grow will depend on what your market wants and how regularly they'll order.
- **Labour and logistics:** Will you run the farm yourself or hire someone? Factor this into your operating model.

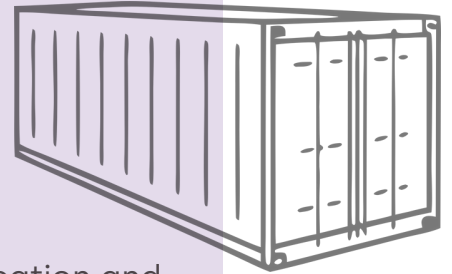
Your Farm, Your Way.

Develop

Get ready to grow.

This is where your plan becomes real:

- **Site visit & feasibility study:** We assess your location and guide you on what's needed (Flat ground, access to water, 3-phase electricity).
- **Training:** Join a one-day intensive at our Blenheim HQ to get hands-on with Tumblebug SOPs, hygiene, and HACCP protocols.
- **Contract & deposit:** Finalise your business model, pay your deposit, and sign your project contract with delivery milestones.
- **Prepare your site:** You'll level the ground, prepare utilities, and make any adjustments needed to receive the container system.



Bringing your farm to life.

Now it's action time!

Deliver

- **We order and coordinate delivery:** Containers (6 weeks), Ecobot (12 weeks), plus all other components including our bespoke AC / Humidification and CO2 control system.
- **Installation & equipment:** Everything from HEPA filters and stainless-steel workstations to the racking and trolleys gets installed.
- **Second fix & system setup:** Electricals, plumbing, carpentry, AC — all completed and checked.
- **Sign off & spawn:** We test the systems, help you sign your spawn supply contract, and you're ready to grow.

Estimated Timeline from Discovery to Delivery phase:

8 - 16 Weeks

The Finances

Understand the numbers. Unlock the potential.

From substrate prep to spawn inoculation, incubation to harvest — gourmet mushroom farming can be incredibly rewarding. But like any business, your returns will depend on how you run your operation. We've included example financials here to guide your thinking. You won't be doing this alone: we'll work with you to build a financial model tailored to your setup, your time, and your ambitions.

Note:

Getting started takes time. We recommend allowing for six months of trial production before scaling up. Use this phase to test your systems, build local relationships, and fine-tune your growing conditions.

How the Numbers Stack Up.

Each Ecobot load pasteurises a mix of coffee grounds and sawdust, yielding **~14 bags** of 4kg substrate at around **50% moisture content**. It runs on a 5-hour cycle, including overnight. Ready to fruit blocks can widen the range of mushrooms and revenue streams and increase margins.

- **Work 5 cycles a week - 70 bags 10 cycles a week - 140 bags**
- **Ready to fruit blocks - 80week**
- Bags move from incubation (2- 3 weeks) to fruiting (2-4weeks)
- Maximum holding capacity:

- **Incubation:** 660 bags capacity

- **Fruiting:** 600 bags

Week	Incubation No. Bags	No. Ready to Fruit Blocks	Fruiting Room Total	Harvest 1	Harvest 2	Removed for Composting
1	70	80	150			
2	140	160	300			
3	210	240	450			
4	280	320	600	80		
5	280	320	600	80		
6	280	320	600	80		
7	280	320	600	150	80	80
8	280	320	600	150	150	150
9	280	320	600	150	150	150
10	280	320	600	150	150	150

Example Process Flow for full capacity of 70 recovered waste substrate bags of e.g. Blue Grey Oyster plus 80 Ready to Fruit blocks of 1kg/bag yield mushrooms. Note first harvest will be greatest yield . Actual process flows to be designed with customer. All yields will be dependent upon your choice of management of your operation.

Example Yields

We recommend starting with mushroom varieties that thrive under similar conditions and grow well in pasteurised coffee grounds such as Blue Grey Oyster, Golden, Black Pearl and White Elm. Buy in Ready to Fruit blocks for species which require sterilisation (as opposed to pasteurisation) such as Lions Mane and King Oyster.

Average potential Mushroom Yield/4kg bag	Description	Amount per 1kg of wet substrate (g) from grain spawn in own mixed bags	Ave yield per 4kg bags	Potential average yield per 70 bags / week	Ave reported yield / fruiting block	Potential Average yield per 80 fruiting blocks 2.5kg
Blue Grey Oyster	The yield generated from one block is approx. 1.1kg across 2-3 harvests from a 3.3kg block. Each harvest lies within approximately 2 weeks of one another. Largest harvest in Flush 1 then 2.	250	1000	70	300	60
King Oyster		180	720	50	300	60
White Elm		250	1000	70	300	60
Lions Mane		200	800	56	300	60
Golden oyster		200	800	56	300	60

TO NOTE:

- We will model the process flows, labour, species, yields and revenue to create the business forecast for your situation and chosen route.
- Mushrooms can be dried to provide high value product with longer lasting shelf life
- The return will be dependent upon how you use the facility.
- Incubation space capacity is 660 substrate bags at any one time
- Fruiting space capacity is 600 bags at any one time.
- One 5l spawn block will create 7 x 4.4kg growing bags.
- Substrate can be turned to a peat free growing medium post harvest for further revenue potential or use on farm.

Recommended Retail Price (fresh) based on quantity sold UFI Recommendation	1-2kg B2C/Sustainability Story /Trade small quantities	3-30kg Trade orders
Blue Grey Oyster	£ 17.00	£ 14.00
King Oyster	£ 17.00	£ 17.00
White Elm	£ 12.00	£ 10.00
Golden Oyster	£ 17.00	£ 14.00
Black Pearl Oyster	£ 17.00	£ 16.00
Lions Mane	£ 22.00	£ 20.00

Source: Direct market research with over 40 pubs and restaurants. Internet research. Pricing from other mushroom growers and spawn providers. Note: A higher premium can be achieved when the mushrooms can be delivered fresh, locally and within 24 hours of harvest. They hold their shape and form better the shorter the time from harvest to plate. Best stored in paper/ card boxes in fridge and washed before use.

Example Sales and Costs

Total Price		Fruiting Room Only	
Total Price	£ 145,000	exc VAT	£ 75,000
Deposit on Order	£ 95,000	Inc VAT	£ 45,000.00
Deposit %	66%		60%
Develop Phase - Week 4 (inc in total price)	£ 5,000	exc VAT	£ 5,000.00
Planned and Preventative Maintenance contract	£120/month		£50/month

Sales and Cost Numbers	Model 1: 5 cycles (70 bags Blue Oyster) + 80 Fruiting Blocks (Lions Mane)	Model 2: 10 cycles (140 bags Blue Oyster) + 20 Fruiting blocks (Lions Mane)	Model 3: Fruiting Blocks Only (Extra room or Exclusively Fruiting Only (60% Lions Mane 40% mix of Black Pearl/Golden j120
Price based on yield, price per kg and mix of species and ave of B2C and D2C			
Estimated sales	£ 119,444	£ 128,128	£ 113,277
Estimated COGS - excluding labour and Sales & Marketing	£ 36,625	£ 37,472	£ 30,175
Gross Profit (Excluding labour and marketing costs)	£ 82,819	£ 90,656	£ 83,102
Gross Margin (Direct production costs)	69.3%	70.8%	73.4%

Note: Estimated COGS DOES NOT include labour. For illustration: The Tumblebug Mushroom Farm employs 1 full time manual labour plus 2 days Management Sales & Marketing. customer will wish to deploy a different model for running the farm.

Estimated revenues	Lions Mane	Oyster	Black Pearl/ King
Average selling price - B2B	£ 20.00	£ 14.00	£ 16.00
Average selling price - D2C	£ 22.00	£ 17.00	£ 17.00
Model	Model 1: 5 cycles (70 bags Blue Oyster) + 80 Fruiting Blocks (Lions Mane)	Model 2: 10 cycles (140 bags Blue Oyster) + 20 Fruiting blocks (Lions Mane)	Model 3: Fruiting Blocks Only (Extra room or Exclusively Fruiting Only (60% Lions Mane 40% mix of Black Pearl/Golden j120
Average weekly yield D2C	£ 2,454	£ 2,688	£ 2,197
Average Weekly yield B2B	£ 2,140	£ 2,240	£ 2,160
Average of the two	£ 2,297	£ 2,464	£ 2,178

Note: For illustration purposes only. This will depend upon your chosen model of operation and customer base.

Estimated weekly COGS breakdown - Farm Labour, Sales and Marketing not incl.			
Mushroom spawn	£ 169.90	£ 339.80	£ -
Grow bags	£ 60.20	£ 120.40	£ -
Fruiting Blocks	£ 312.00	£ 78.00	£ 468.00
Cleaning and Labelling	£ 22.23	£ 22.42	£ 22.28
Electricity/water	£ 70.00	£ 90.00	£ 40.00
Other/ Servicing/Maintenance	£ 70.00	£ 70.00	£ 50.00
Labour and Sales and Marketing Example Costs			
Total estimated weekly COS	£ 704.33	£ 720.62	£ 580.28

Note: This is based upon 52 week/ year operation

Note: No labour costs for running the farm, sales and marketing have been included in the model as every client will choose a different model

Note: The production will vary depending upon the varieties grown and the mix of B2C and B2B sales.

You won't be doing this alone: we'll work with you to build a financial model tailored to your setup, your time, and your ambitions and support you with all consumables and servicing and maintenance.

Example Labour and Sales & Marketing

7 days a week at a £25k / annum salary
Daily gross salary: £25,000 ÷ 260 working days ≈ £96.15
Employer NI (approx. 13.8% above the threshold): On £25,000, employer NI is roughly £2,100/year , or
Employer pension (3% of qualifying earnings): On £25,000, this is about £600/year , or £2.31/day
Total daily cost to employer: £96.15 (salary) + £8.08 (NI) + £2.31 (pension) ≈ £106.54
Cost for 7 days: £106.54 × 7 ≈ £745.78
5 days manual labour at £21k /annual plus 2 days/ week Management and Sales and Marketing at £35k/annum
£21k/year role: £21,000 ÷ 260 working days ≈ £80.77/day 5 days/week = £80.77 × 5 = £403.85/week
£35k/year pro rata (2 days/week): £35,000 ÷ 260 ≈ £134.62/day 2 days/week = £134.62 × 2 =
Total gross weekly pay = £403.85 + £269.23 = £673.08
Employer NI (13.8% above threshold)
NI threshold: £175/week (2025/26)
NIable pay = £673.08 – £175 = £498.08
Employer NI = 13.8% × £498.08 ≈ £68.73
Employer Pension (3% of qualifying earnings)
Qualifying earnings band: £120–£967/week
Pensionable pay = £673.08 – £120 = £553.08
Employer pension = 3% × £553.08 ≈ £16.59
Weekly Cost to Business
Gross pay: £673.08
Employer NI: £68.73
Employer pension: £16.59 ➡ Total: ~£758.40/week
Model 3: Fruiting Room Only 2 days manual labour @ £21k and 2 days @£35k Management & Sales and Marketing
1. Gross Salary (Pro Rata)
2 days/week at £21,000 = £8,400/year
2 days/week at £35,000 = £14,000/year Total: £22,400/year
2. Employer National Insurance (NI)
Tax-free threshold: £12,570
NI taxable = £22,400 - £12,570 = £9,830
NI rate ≈ 15% Employer NI = £9,830 × 0.15 = £1,474.50
3. Employer Pension Contribution
Only on earnings between £6,240 and £50,270
Pensionable pay = £22,400 - £6,240 = £16,160
Employer rate: 3% Employer pension = £16,160 × 0.03 = £484.80
4. Total Business Cost (Annually & Weekly)
Gross salary: £22,400
Employer NI: £1,474.50
Pension: £484.80 Total Annual Cost = £24,359.30 Weekly Cost = £24,359.30 ÷ 52 ≈ £468.45

Note: These figures are for illustration only and represent options which can be fed into the funding model.

Support and Supplies from Leading UK Mycology Experts

We're not just selling you the hardware — we're setting you up for long-term sustainable success.

We will connect you with our mycellium network! We secure spawn supplies from leading mycology experts, who bring deep, hands-on expertise in gourmet mushroom cultivation — from strain selection to troubleshooting. We establish your chosen supply and source of:

- **Premium mushroom spores:** reliably high-yielding, rigorously tested.
- **Quality UK fruiting blocks:** regular and reliable, sustainably sourced
- **Expert support:** from species choice to troubleshooting.
- **Recommended pricing guidance:** all RRP estimates in this brochure are backed by market data and experience.

Why Now?

The demand for **plant-based, nutrient-dense foods** is growing fast — and mushrooms are leading the charge. Gourmet varieties like **shiitake, oyster,** and **lion's mane** are favourites not only for their rich flavours but also for their health benefits and sustainable story.

By investing in mushroom farming now, you're tapping into a future-focused market that blends food innovation, ecological farming, and wellness culture — all in one delicious package.

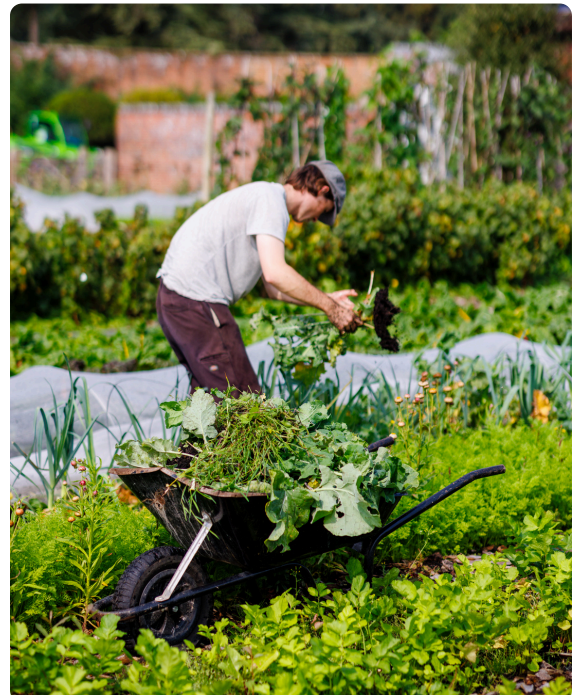


After the harvest...

Once harvested the value recovery doesn't stop there!

During the Discover and Define stage we will explore the options for post harvest valorisation of the finished blocks. Tumblebug pyrolysis technology and aerated compost systems enable the production of biochar growing medium.

Create your own peat free growing medium for use on farm to enrich your soils or sell locally.



Frequently Asked Questions

What's included in the system?

- All equipment from Air Control Systems, racking and cleaning equipment plus setup documentation.

How long does setup take?

- Installation within 12-14 weeks after the initial site check.

What mushrooms can I grow?

- A range of different oyster varieties, Golden , Blue-Grey, Pink, Black Pearl, White Elm, Lion's Mane — robust, gourmet varieties.

What are the risks?

- As with any farm, contamination, crop failure, and market access are considerations. We'll help you mitigate them.

How profitable is it?

- Depending on scale, farmers can achieve 30–60% margins.

What are future opportunities?

- Drying mushrooms, selling grow kits, creating biochar — and more.

Is it possible to use feedstuff other than coffee grounds and sawdust?

- Mushrooms substrate can be made from a range of organic materials: dust extracted straw, sawdust, bran, soy husks. We have incorporated the option of combining your own substrate mixing with the purchase of ready to fruit blocks. This enables the grower to widen the range of species offered to include those such as Lions Mane, King Oyster which require sterilisation.

How much sawdust and coffee grounds, if used, are required?

- Pasteurising with the Ecobot EB100S will produce enough substrate for 14 x 4kg bags per load. Loading with coffee and sawdust we use a mix of around 25kg spent coffee grounds to 20kg of sawdust and add in water.

Are there any quality requirements for the sawdust and the coffee grounds?

- All sawdust should be untreated and preferably hardwood. The coffee grounds need to be used within 48 hours of production.

What does FSA Level 3 training involve?

- FSA Level 3 Food Hygiene and Safety in Retail is for supervisors and managers in a food business where packaged food is sold that is not usually consumed straight away. Approx. £130 + VAT
 - FSA Level 2 Food Hygiene and Safety in Retail is for food handlers who sell food that is not necessarily consumed straight away. Approx. £20 + VAT
 - We can recommend the training providers we chose but you may wish to select your own.
-

Future-Proof Your Farm

Diversify Your Revenue

Expand your income through grow kits, dried mushrooms, and regenerative farming— all rooted in circular thinking.

Farm Smarter, Sustainably

Do more with less. Feed your local community, regenerate your soil, and shrink your carbon footprint — all from a compact, climate-resilient system.

Join the Next Agricultural Revolution

This isn't a trend — it's a transformation. Gourmet mushrooms are leading the charge in plant-based innovation. Position yourself at the heart of what's next.





Ready to Grow? Let's Talk

Your next steps:

- Book a free consultation.
- Start your feasibility assessment.
- Review investment options and create your own financial model to estimate revenue potential.

Contact Tumblebug today to start your journey into sustainable and profitable mushroom farming.

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