

T H E
GARDEN MUSHROOM:

I T S
NATURE AND CULTIVATION.

A
T R E A T I S E,

E X H I B I T I N G

Full and plain Directions, for producing this desirable Plant
in Perfection and Plenty, according to the true successful
Practice of the LONDON GARDENERS.

B Y
J O H N A B E R C R O M B I E,
Author of MAWE'S GARDENER'S KALENDAR.

L O N D O N,

Printed for LOCKYER DAVIS, in HOLBORN.
M DCC LXXIX.

Price One Shilling and Six-pence.

ADVERTISEMENT.

IN the course of forty years practice and observation, I have generally remarked, that the culture of the Garden Mushroom has proved considerably more precarious and unsuccessful than that of any other kitchen-garden

A 2

vegetable ;

vegetable; or even of almost any other cultivated plant of our gardens; and that its true nature is little known among the generality of gardeners. Some, even amongst experienced and ingenious professors, who raise all other plants in perfection, have been found often to fail in the article here described.

This plant is of so very singular a growth and temperature, that, unless a proper idea of its nature and habit is attained, and the peculiar

cular methods and precautions pursued in the process of its propagation and culture, little success will ensue. The whole management of it remarkably differs from that of every other species of the vegetable kingdom; and it is the most liable of any to fail, without a very strict observance and care in the different stages of its cultivation.

Directions respecting the culture of Mushrooms, are to be met with in various books of gardening,
but

but they are defective and prove to be of small service, because they are not the result of real practical experience.

CONTENTS.

	Page
<i>Of the Utility of the Garden Mushroom, and its Preference to the Field Sort.</i>	9
<i>Nature, Mode of Growth, and Specific Dis- tinction of the wholesome Species from the pernicious Kinds.</i> - -	11
<i>Generation of the Plant,</i> - -	13
<i>Of collecting the Spawen.</i> - -	15
<i>Of preparing Dung for the Bed.</i> -	25
<i>Of forming the Mushroom Bed.</i> - -	28
<i>Spawning</i>	

<i>Spawning the Bed.</i>	-	-	-	36
<i>Spawning in the Dung.</i>	-	-	-	40
<i>Spawning on the Surface.</i>	-	-	-	45
<i>Spawning in the Earth.</i>	-	-	-	46
<i>General Culture of the Beds ; and Produce.</i>				47
<i>Of gathering the Mushrooms.</i>	-	-	-	51

Of the U T I L I T Y of the
GARDEN MUSHROOM,

A N D

Its Preference to the FIELD SORT.

THE *Garden Mushroom*, or that produced by the art of horticulture, or process of regular cultivation in gardens, is greatly superior in all respects to the wild chance Mushroom of the meadows and pastures. It is now universally admired as one of the delicacies of the kitchen garden; and is a requisite production of that department; being always in request, and highly acceptable, though seldom obtained in plenty and perfection. This difficulty has been owing to its singular mode of culture being little

B

known

known to the far greater number of practitioners beyond the vicinity of London. Here it is raised by many of the kitchen-gardeners. Their successful method we have long practised, and now propose to explain to the reader.

It may be just observed, that although the Mushroom grows spontaneously in meadows and pasture-fields, it is obtained there accidentally only, and at a particular season : but, by garden culture, we procure this plant at any time of the year, whenever it is wanted, and always of superior goodness, richness of flavour ; and with a certainty of its being the true salutiferous, or wholesome kind : a matter of the utmost moment, since there are, in the fields, so many of a pernicious quality, bearing so great a similarity to the true sort, that, having been gathered by the unskilful, have proved fatal to thousands,

Nature, Mode of Growth, and Specific Distinction of the wholesome Species from the pernicious Kinds.

THE Mushroom is a fungous plant, without appearance of leaves, flowers, or seed, a species of the *Genus Agaricus*, subject to the botanic class *Cryptogamia Fungi*, comprehending fungous plants, which have concealed, or doubtful genital organs, and without visible flower or seed; thereby belonging to the family of imperfect vegetables; a numerous train of which are of this fungous tribe. They consist of different *genera*, and numerous species and varieties, many of them of a poisonous, or at least of a suspicious nature. One species only merits cultivation as a wholesome esculent, which is that under consideration.

Agaricus Campestris, Field Agaric, or Common Mushroom, rises from the ground in its

perfect form, with an erect robust *stipes* or stem, one inch or more high, crowned with a round, convex, thick, fleshy, white head or hat, *pileus*, with *lamellæ*, or gills, underneath, of a reddish flesh colour; it is supposed the flower and seed, if any, are concealed between the *lamellæ*. When the plant arrives at full growth, the head expanding almost flat, forms a large flap, and falls on the ground over the supposed seed.

This is a fugacious plant of quick growth and short duration, advancing first like small white round knobs, which, increasing fast in size, and sometimes partly accomplishing their growth within the surface, suddenly make their eruption from the earth above half-grown, in the morning, where there was no sign of them the night before. But in the regular beds they arise variously, spreading over the whole surface, some as small as
 pease,

pease, some the size of buttons, and some near full growth; others frequently appear issuing from the bed of a large size, being completely formed under the surface.

This species (*Agaricus Campestris*) is distinguishable from all others, by its fine white fleshy head, the red colour of the gills, and by its imparting an agreeable Mushroom flavour. As the plant becomes large, the gills assume a blackish red without, retaining however internally its fleshy colour, by which it always shews itself to be the true sort.

Generation of the Plant.

THE Mushroom tribe has long afforded much speculation to naturalists, with respect to being perfect or imperfect plants. The flower and seed, from their exceeding minuteness

nuteness and obscurity, (if they really exist at all) remaining invisible even by the aid of the microscope. Many therefore suppose that there is no production of flower or seed, but that they owe their origin entirely to the putrefaction of earth or dung. This sort of soil however first discovers them under the form of a white, mouldy, fibrous substance, called spawn, which proves productive of numerous minute white knots, or embryo plants, gradually increasing to the perfect Mushroom.

On this subject the botanic world have been long divided in opinion, the moderns generally contend for the flower and seed, and have in a manner confuted the doctrine of putrefaction.

These consider the Mushroom as a true and perfect plant, produced from seed
afforded

afforded from the flower of preceding plants by some wonderful secret in nature.

The invifible feed difcharged on the adjacent foil, and thence diffeminated by the air to fituations adapted to it's nature, germinates and fhoots forth into white fibrous, cobweb-like fubftances, fpreading and forming the fpawn and embryo plants for the production of the future Mushroom. Thus, probably, by fuch diffemination, and fo myfterious a progress of nature, adapted to certain foils and fituations, it is, that we often find both Mushroom and fpawn abundantly in obfcure places where none were ever obferved before, in old dung hot-beds, horfe dung-hills, and in bye dry places where horfe-ftable dung has lain undifturbed till rotten.

The fpawn is alfo often found in pasture fields under the turf, in places where Mush-
rooms

rooms are observed to rise naturally, dung-spawn however is preferable for garden culture, as well on account of the probability of a good crop, as of it's being the true sort.

Of collecting the Spawn.

AFTER the foregoing strictures on the general nature, growth, generation and propagation of the Mushroom, we proceed to explain the necessary preparation for its culture in gardens, by the following directions concerning the spawn.

The propagation of the Mushroom is to be effected by planting lumps of spawny-dung, found chiefly in dry rotten dung or clods of dungy earth, and interwoven in the soil in numerous white stringy fibres, often of a cob-web-like form, and if of the true sort,

disco-

discovering a strong smell of the Mushroom. A due quantity should always be provided previous to making the bed, in order that you may more readily judge of what size to determine upon; for it is sometimes difficult to be had in any considerable abundance; so that according as it is occasionally met with, it should be carefully collected, taking the lumps of spawn and earth entire, of which, for a bed twenty feet long, three or four bushels will be requisite, and so in proportion.

Spawn is obtained the most readily and in abundance in parcels of decayed dung and dungy composts; but commonly more plenteously and good in rotten horse stable dung, composed of the short dung and moist litter together, as cleared from the stables, either collected in dung-heaps, or formed into hot-beds, composts, &c. when it has

remained some months till its fermentation and heat are decreased, and a state of decay and putrefaction brought on. This kind of dung being more adapted to the generation of spawn than any other, is a favourable circumstance, as horse dung is to be every where met with.

In cucumber and melon beds, at the end of the Summer, when the crops are over and the dung decayed or rotted, we often discover great plenty of most excellent spawn.

Old Mushroom beds likewise which have been composed of the same kind of warm dung, when decayed or worn out, and pulled to pieces, generally afford good spawn, which should be carefully preserved till wanted.

Be careful too in searching adjacent old dung-hills and dungy compost heaps in any out-grounds, and in stable yards, where horse dung-heaps have been for some continuance in a state of decay, especially in obscure dry corners long undisturbed.

In the horse rides and livery stable yards in and about London, where the long covered rides are littered thickly from the stable, with occasional dunging and staling, search towards the sides where you will often find great abundance of fine large cakes of most excellent strong spawn.

Horse-mill tracks also, where horses are constantly employed under cover in turning mills; and many of the great London breweries, tan-yards, and large manufactories,

where horses work under cover, frequently furnish very fine spawn. .

Sometimes in kitchen gardens, when the ground has been thickly dunged in the Spring with half rotten dung, on digging the same again in Autumn, and looking with care, good lumps of spawn are to be found.

So that in all decayed dung-heaps and hot-beds, old dungy composts, and well dunged soils, not too wet, or the dung very buttery rotten, you may be successful.

Frequently in old dung-heaps some fragling Mushrooms are seen to rise naturally in Autumn, there you may be sure to find spawn.

Lastly

Lastly it may be procured in the meadows and other grass pastures towards the end of Summer or in Autumn, here and there, in places where Mushrooms happen to rise in their natural growth : breaking up the turf, the spawn will be found in the earth, and may be dugged up in lumps for use : however, where enough of dung spawn can be had, I always prefer it to that of the field, as before noticed,

The best season to find spawn in the greatest plenty and perfection is the Autumn and early part of Winter ; for spawn being of a singular temperament, impatient of much wet, or cold, or of being much exposed to the open air, it should be carefully collected for use before it is injured and weakened by the inclemency of the weather ; for it is of much importance to have it in full vigour, when, it may be directly used
in

in spawning beds, provided it be quite dry ; otherwise let it lye by for a few weeks.

Be careful, in collecting the spawn, to have the lumps or cakes of spawny dung taken up entire, placing them in a basket or wheelbarrow, in order to be carried into some dry close shed or room, to be deposited till wanted ; noticing whether any of the lumps be wet : in that case spread them to dry a little ; then let the whole be placed in a dry corner, closely covered with straw or litter or garden mats ; or packed up in sacks or hampers, covered close in the same manner, whether for present use, or for keeping. By attending to these directions its vegetative power may be long retained, and the spawn safely sent to any distant place.

We should be particularly cautious to reject spurious or false spawn ; for there is a degenerated

degenerated variety, called white-cup, which produces a sort of Mushroom with a small thin white head without any fleshy part, and generally rises up suddenly in the beds. This sort is entirely useless, and often disappoints the gardener. It is distinguishable generally by its great abundance all over the lumps, by its very fine silky cobwebby nature, and its exceeding white hoary-like appearance; it has little or no substance, and emits but a very faint smell of the Mushroom.

About London, where great quantities of Mushrooms are raised for the markets, and consequently vast supplies of spawn are annually required, there are experienced Mushroom-men, who, at the proper season, go about collecting, both in town and country, the true sort, which they buy commonly from about half a crown to five or six shillings per bushel, according to its goodness or plenty.

In

In very cold wet seasons it is both bad and scarce; and dear in proportion.

Good spawn may also be purchased occasionally of the kitchen-gardeners in the neighbourhood of London, many of whom have extensive Mushroom-beds, as well as common hot-beds. These beds when old, being pulled to pieces, often afford more spawn than the gardener has occasion for, which they lay up dry, and dispose of by the bushel when wanted.

Let it be observed again of the spawn in general, that it must be kept dry till wanted; and if any lumps at first gathering appear wet, spread them in a shady covered place before they are laid up in a house; for it is of much importance to have the spawn perfectly dry when planted.

Of preparing Dung for the Beds.

NO dung answers the purpose so well as that of the horse, the dung and urine of this animal, together with the wet straw litter of the stalls in the stables, being of a hot quality, ferments, and acquires a strong degree of heat of long duration; but as this heat generally proves too violent at first for the growth of vegetables, the dung should always be previously reduced to a proper temperature, by casting it up in an heap, and turning it once or twice, in order to evaporate the rank burning steam before its fermentation. A quantity, in proportion to the size or extent of the intended bed, must be procured. For a bed of twenty feet long, three or four large cart-loads will be necessary, and so in proportion to any length intended; as a bed may be made of almost any extent,

from ten feet to fifty if required ; four or five feet wide at bottom, drawing into a sharp ridge at top four or five feet high ; which will allow for setting.

For private use, a single bed of about ten or fifteen feet in length may be fully sufficient. But for the supply of the London markets, long parallel ranges are made, from twenty to fifty feet in length.

Provide therefore a proportionate quantity of the best fresh horse-stable dung and litter, warm and moist, rejecting such as is dry and decayed, and such as has already exhausted its fermenting property. Let this be taken long and short as it comes to hand ; and as it is brought in, toss it up together in an heap, carefully mixing, that the whole mass may acquire an equal degree of heat.

Thus

Thus let it remain together three or four weeks, according to the quantity and strength of heat, in order that it may meliorate, by discharging the rank obnoxious steam; and if it is turned over once every week, it will still incorporate the parts more effectually, and give an additional vent to the fierce ferment.

This preparation of the dung is absolutely necessary, as without such precaution, when formed into a close bed, it is apt to acquire such a vehement degree of heat, as to burn and exhaust its vegetative power, without being able to effect the purpose intended; for the spawn requires a bed that only gradually advances to its full heat, and declines in the same gradual manner; till reduced to the low, kindly, growing warmth that is peculiar to the nature of the spawn, and the growth of the **Mushroom;**

Of the Mushroom Bed.

THE seasons for making the beds have been already observed under the article of preparing the dung. With respect to the situation, they may either be in melonary or cucumber ground, in a dry elevated spot, and a warm sunny exposure; or in any of the large quarters of a dry kitchen garden.

They may be made either entirely on the surface, or occasionally in a shallow trench. In low or strong soils, where there is danger of water remaining in Winter, or after hard rains, elevate the bottom of the bed sufficiently from the wet. By its being entirely on the surface you have the opportunity of employing the whole bed quite from the bottom, which could not be so well effected if part were buried in a trench. If it be designed to have
the

the bed in one of the dry kitchen garden quarters, in a rich light soil, make a shallow trench about six inches deep, in order to use the earth thereof in moulding over the bed, to save the trouble of bringing it from a distant part; especially where considerable ranges are intended, and require great quantities of earth; using also the earth between the beds, digged down as low as the bottom of the dung, that the whole on each side of the bed may be cleared sufficiently to admit of spawning it quite from the bottom. The bed should be four or five feet wide, four or five feet high, and in length it may extend from ten to fifty feet or more. If two or more beds are intended, let them be arranged parallel one beside the other, at six or eight feet distance, and, if convenient, ranged South and North, that both sides may have equal benefit of the sun's influence, for occasionally
drying

drying the covering of litter more effectually, when rendered wet by excessive rains.

According to the above directions, mark out the places for the beds, and let the surface of the ground be well cleared from weeds and rubbish four feet wide, and if a trench is intended, excavate it only about ten inches deep, laying the mould equally to both sides ready for moulding the bed when spawned.

In the formation of the bed different methods are practised; but I never found more than one to be good and successful. Some are made by a layer of dung a foot thick, and a layer of earth, alternately; but beds made entirely of dung are what I recommend; dung and earth together rarely succeed, notwithstanding this method is recommended by some eminent writers, who however

ever

ever appear to have been totally unacquainted with the proper management.

Let the dung when duly prepared in the heap as before advised, be brought in long and short together as it comes to hand: then having a handy two-tined fork, &c. begin to form the foundation of the bed by shaking some of the longest dry litter, evenly at bottom, forming the bed at first to the full width, and gradually narrowing upwards, by drawing in each side moderately and regularly, generally advancing only a yard or two in length, raising it by degrees to a ridge the full height, as a guide to the whole; and continuing it along regularly lengthwise in the same proportion. Beat the dung firmly in with the fork from time to time as you proceed, and be careful to form both sides of an equal slope, narrowing very gradually upwards till they meet
and

and terminate at top in the sharp ridge before mentioned; each end to be also proportionally sloped. Let the whole be firmly wrought to preserve effectually the requisite uniformity, and prevent settling too considerably; for it should be three feet, or three feet and a half perpendicular height when fully settled. Finish the work by trimming up all small dung on the ground around the bed, to the top; beating the whole on both sides firm and even; so that the bed now finished may assume the shape of the roof of a house, both sides forming steep slopes, in which the spawn is to be planted.

In a week or fortnight after the bed is made it will heat violently, and probably continue so for a fortnight or three weeks or more, especially if of a considerable extent, and must on no account be spawned till the

violent

violent heat subsides and becomes reduced only to a gentle warmth, otherwise the spawn will be totally destroyed and the whole work to be done over again, and this is often the cause of so many Mushroom beds proving barren, the spawn perishing at the first setting off. See *Spawning the bed*, page 36.

When the bed is made, thrust down some long sharp pointed sticks, two three or more, in each bed according to its length, and by drawing up the sticks two or three times a week, and feeling the lower end, you will be able to judge more readily of the working and state of the beds, for the reception of the spawn.

Let the bed be fully exposed to the open air, day and night, that its heat may come on gradually without burning; if

excessive rains should happen, cast some dry litter at top, or spread garden mats, so as to shoot off the wet, lest it should perish the bed, or occasion it to heat violently and burn; either of which would render it totally useless. Great humidity is a certain enemy to Mushroom beds, as it soon exterminates the whole spawny substance.

Some persons indeed make the beds under an airy covered shed, or barn, or erect a sort of awning of canvas : some also, having considerable ranges of glass houses, make them in these departments. I however have always found success in the open ground, and generally much better than when under any covering.

By way of curiosity and experiment, I have made a bed for Mushrooms in the same manner as for cucumbers and melons, permitting

permitting it to remain till the heat had in a manner quite declined, then put on the frame and placed the spawn on the surface of the dung, and earthed it two inches with light fine loam, covered the whole, half a foot, with dry litter, as also the outside of the bed and frame, defending it with the lights tilted behind, and have succeeded.

I have observed, in the Autumn, in an old melon hot-bed a large quantity of strong spawn overspreading the surface of the dung within the frame, and running considerably through the mould, which was loam. Covering the surface of the earth with dry hay and litter round the outside, and putting on the lights, I have suffered the whole to remain undisturbed till about February, when the Mushrooms began to appear in as great a crop and as fine as

ever were seen. In late cucumber and melon beds, made in April and May, for the Autumn crops, I have, when the heat of the bed has become very moderate, placed some pieces of spawn along the edges about two inches under the mould, and in Autumn, have produced good Mushrooms, observing to cover the place with a little dry litter.

However the only certain method is to make a regular bed as before directed.

Spawning the Bed.

IN the work of spawning the bed, the utmost precaution must be observed, not to perform it until the great heat has passed off, and left only a very gentle warmth; for the small tender spawny-fibres and minute knots
of

of embryo plants would, by one day's great heat, be totally destroyed. All that is required, is a kindly warmth just to set the spawn in motion, and forward it in shooting out its tender fibres over the dung and earth. But it must be remembered, that a bed being spawned and closely covered over with the necessary coat of earth, an inch or two thick, thereby excluding the outward air, and confining the heat within, occasions that heat to be renewed afresh, and might cause the bed to burn; so that you must be cautious in putting in the spawn while much heat remains: nor must the covering of litter be applied too soon after, especially in strong beds: for these require a week, a fortnight, or more, before this is proper to be done.

Be careful therefore in these particulars: for on spawning and covering in at a due degree of warmth, depends the whole success;

and

and in this you will be regulated according to the working of the bed, as some will be fit to spawn in two, three, or four weeks, others not in less than five or six, according to their length, and the strength of the dung. A bed of fifteen or twenty feet long will be sooner ready for spawning than one of forty or fifty.

After the bed has been made a fortnight or three weeks, examine it frequently by the trying-sticks, which we advised, examining them frequently and you will readily discover the requisite heat and proper state to admit of spawning.

Sometimes in very substantial beds, after they have remained seemingly long enough, and we are doubtful of an increase of heat, we begin spawning on the lower part of the bed first, which part becomes warm before the

the

the upper; the heat naturally mounting upwards, and remaining hot longest towards the top; besides, by leaving the upper half unspawned and un-earthed, the heat from below if it should prove a little too strong, finds vent above; but in about a week's time spawn it wholly: the lower part having a week's advanced growth, will probably furnish a small gathering some days before the upper half.

However, in general, after having observed the necessary precautions just given, take the first opportunity to perform the spawning, losing no time for the bed to exhaust itself ineffectually without being planted.

Let the spawn be brought forth in a dry day, and be careful that it is tolerably dry in itself; proceed to plant it in pretty middling lumps; not separating the spawn, from the
 lumps

lumps of dung in which it is contained; but observing that the large cakes be broken into moderate pieces. Plant the sides of the bed in one or other of the three following methods, *viz.* just within the dung, earthing over an inch or two thick—on the surface, and then earthing over—or, by first earthing the bed an inch or two thick, then spawning the earth, and adding an inch depth more over the whole.

Each method perform as follows.

Spawning in the Dung.

The spawn being in moderate lumps, is to be deposited just within the dung, at regular distances, in rows length-ways beginning the first within half a foot of the bottom, making small apertures by gently raising the dung a little with one hand, whilst with the other you directly insert the lump, proceeding in
the

the same manner with the rest, placing them five or six inches distance in the row, and the rows about six or eight inches asunder, a little more or less, proportionably either to the *abundance* or *goodness* of the spawn. If your spawn be in plenty it may be planted closer, and let the small crumbs remaining at last be laid evenly along upon the top of the bed, which finishes the article of spawning.

Then smooth the sides of the bed with the back of the spade evenly, for the reception of the casing of earth, which should be an inch or two thick, evenly laid over every part.

Choose for this purpose any good, light, rich kitchen-garden earth. If the bed is made in any of the kitchen-ground quarters, you may use the adjacent earth on each side; or, if there is a shallow trench made, let the

excavated earth be used, being careful, first to break it fine quite down to the bottom of the bed, that no part of it may be lost underground; then begin the casing or coat, first along the bottom, continuing it regularly up the sides of the bed, beating it lightly with the back of the spade in laying it on, thereby fixing it even and smooth: thus proceed regularly over each side, both ends, and the top, smoothing the whole in a neat manner.

Then place down your long, sharp-pointed sticks, in the sides of the bed, for occasionally trying the internal state of the heat, after being closely earthed over, in order to discover when to apply the covering of litter, &c.

The covering of litter will be required as soon as you discover that there is no danger of
burning,

burning, which probably may be in a few days, or a week, in moderate beds; in others two or three weeks. This you will readily judge of by the sticks placed in the bed, as above, or according as the weather proves more or less favourable; heavy rains, &c. may oblige you to cover in sooner than you intended, in order to preserve the spawn.

For the purpose of covering, you may provide either clean straw, or long dry horse-stable litter, sufficient to lay about half a foot thick at first, but gradually increased afterwards of due thickness to defend the bed effectually from the air, rain, and inclement weather, and to preserve a low kindly warmth.

As soon as you apprehend all danger from heat to be over, let the bed be finally covered up with the aforementioned dry stable litter, or clean straw, observing to shake the cover-

ing on lightly with a fork, nearly a foot thick ; at first, we cover only about half a foot, increasing it by degrees, and sometimes only the lower half of the bed, if we are any ways doubtful about the after-heat, so gradually advancing upwards till the whole is covered over. It is also adviseable in Winter, and all bad weather, to spread large thick garden mats all over the litter or straw, &c. both to secure it the better from being displaced by the wind, and to shoot off the rain before it penetrates too much, so as to wet the litter considerably, or go through to the bed, which must also be carefully looked into after excessive rains, and if the litter next the bed be wet, to be removed as soon as possible, and dry litter applied in its place.

Spawning on the Surface.

IF you have plenty of spawn this is a good method to have a forward and plentiful crop, as the spawn may be laid pretty close all over the surface, and earthed over two inches thick, as follows.

Begin the spawning along the bottom first, as in the other method, quite down at the lower edge of the bed ; placing the pieces of spawn flat-ways upon the surface of the dung, beside one another, either closer or wider asunder, according to the plenty, proceeding with a regular layer all along, a foot wide, up the side of the bed, earthing this over two inches ; then another layer of spawn higher up the bed, and earth it as the other, and so on till finished, laying the small crumbs of spawn remaining at last upon the top of the bed, earthing it over as before directed,

rected, smoothing the whole with the back of the spade; and place some sticks down to discover the working of the bed and temperature of the heat, as in the former method.

The covering of litter or straw must also be applied in due time, when you perceive no appearance of after-heat, observing the same precautions and method as already advised in the preceding article of *Spawning in the Dung*.

Spawning in the Earth.

This is performed by previously earthing the bed, and then inserting the pieces of spawn into the earth, which often proves very successful.

The bed is first beat smooth with the spade, then earthed all over evenly about two inches deep;

deep ; then, breaking the spawn into moderate lumps, introduce them into the earth at small distances all over the bed ; and, when finished, add a little fine earth over the whole near an inch thick, smoothing it off with the spade, as in the other beds ; afterwards, observing the former cautions, let it be littered in due time with straw, or litter, and mats, as before directed,

General Culture of the Beds ; and Produce.

The covering of litter is to remain constantly on the beds, day and night, in all weathers, only be careful to examine it after hard rains, to remove the wet litter, as before observed. During the Winter season, in time of snow or cold rains, augment the thickness of the covering both of the litter and the mats.

With respect to the produce, the beds begin furnishing Mushrooms in a month or six weeks after spawning: sometimes indeed it will be two or three months, but there is no great success to be expected when they are long before they yield their first crop; a good working bed, if well spawned and managed, commonly affords plenty in six or eight weeks, continuing sometimes for three months together, rising in numerous clusters one under another, covering the surface of the bed, some appearing in embryo, some larger, and others, at the same time, full sized; but these last should not remain long enough to become large flaps, because they would prove detrimental to the adjoining successional plants, especially when the bed is in full production.

The Autumnal beds, if the spawn is in perfection, generally produce in a shorter time

time than those made in the middle of Winter, and Spring beds more freely than those of the hot time of Summer.

When it happens that a bed disappoints our expectation, if, upon examination, the spawn appears in life and health, and smells well, you are not to disturb it too hastily, for sometimes, after remaining dormant several months, a bed will break forth all at once into considerable crops. To assist such beds we sometimes, in Winter especially, if the heat appears to be greatly declined, apply a quantity of moderately warm stable litter over the whole, having first some dry litter immediately next the bed, then the warm litter a foot thick over that; which often, by its kindly warmth, vegetates into life the inactive spawn.

Be very careful to see that the beds remain sufficiently defended with proper dry litter, never exposing them to the open air, in cold weather especially, except just to gather the produce ; or, occasionally, when they have received too much wet, in order to dry the surface for an hour or so in a fine day ; or to remove casual wet or decayed litter next the bed, till fresh is added in its room ; directly covering the whole over again of the proper thickness with perfectly dry litter.

If after excessive rains, the covering receive wet, so as to penetrate a considerable way through, let it be as soon as possible, turned off with a light fork, in a dry time of the day ; removing the wet litter next the bed quite away, and directly adding some dry.

Likewise

Likewise when the litter by long lying on the bed decays, or becomes any way dungy, it should be removed and fresh dry litter applied.

In very cold weather, when beds not naturally worn-out, suddenly decline, it is for want of a proper warmth, which try to recover by applying warm dry litter, as already mentioned.

In very dry hot weather occasionally open the beds then in bearing, and refresh them with a moderate sprinkling of water, or a moderate shower, covering them up again.

Of gathering the Mushrooms.

Though the first production is sometimes six or eight weeks or more after spawning

before it appears, at the end of a month begin to examine the progress and working of the bed, and if successful, you will discover the running and knotting of the spawn abundantly; the Mushrooms will soon after begin to advance plentifully all over the bed, when they may be gathered as they are wanted.

In proceeding to gather them, chuse dry weather, especially during the cold seasons, and turn off the litter on one side first. Gather those above the size of good middling round buttons, with a gentle twist of the hand, head and stalk together; and be careful, in their clusters not to disturb the young successional ones which are advancing just within and out of the surface; lay them gently in a basket, and search quite to the bottom of the bed; not permitting any to re-
main

main to become large flaps unless such are particularly wanted, as sometimes they are.

As soon as you have finished gathering, cover the bed over again directly with the litter, and if in Winter with mats also.

If the bed is in full production it will probably afford two or three gatherings weekly, afterward not above once a week or fortnight, but generally examine it once a week, as long as it is expected to bear,

A Mushroom-bed seldom furnishes any abundance after two or three months; it has often done its best in six weeks.

When, however, the bed has totally ceased to produce, it will furnish a supply of spawn for other beds, and the dung will
be

be excellent manure to wheel on the kitchen ground. Be careful in pulling it to pieces, to preserve the fresh good lumps of spawn, and lay them up dry, as formerly directed, till they shall be wanted for new beds.

F I N I S.

This Day is Published.

T H E
British Fruit-Gardener;
A N D
A R T O F P R U N I N G :

C O M P R I S I N G ,

The most approved Methods of RAISING
and PLANTING every useful FRUIT-TREE
and FRUIT-BEARING-SHRUB, whether for
Walls, Espaliers, Standards, Half-Standards,
or Dwarfs :

The true successful Practice of PRUNING,
TRAINING, GRAFTING, BUDDING, &c.
so as to render them abundantly fruitful :

A N D

Full Directions concerning SOILS, SITUA-
TIONS, and EXPOSURES.

By JOHN ABERCROMBIE;
Author of MAWE'S *Every Man his own Gardener:*
or *Gardener's Kalendar.*

N. B. Eight Editions have been printed of
the *Gardener's Kalendar*. From a diffidence in
the Author, it was first published as the pro-
duction of "Thomas Mawe, Gardener to his
Grace the Duke of Leeds, and other Garde-
ners:" though written by Mr. Abercrombie;
whose name has been added to that of Thomas
Mawe, in all the Editions since the *first*.