Notes

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Game version: 2.052

All of the following information is taken directly from the source code for the version listed above, the <u>original garden guide</u>, and advice given by members of the DashNet Forums Discord Server.

Unlocking the Garden

In order to unlock the garden minigame, you must spend one sugar lump to upgrade your farms to level one:



Sugar lumps are obtained when you reach 1 billion cookies baked all-time. Levelling up your farms further increases the size of your garden, up to level 9 which will give you a 6x6 garden. Initially, only the Baker's Wheat seed will be unlocked, but the rest of the 34 total seeds in the game can be unlocked via crossbreeding, as described in the sections below.

Breeding Your First New Plant

As an example, I will describe here how to obtain the first new seed, Thumbcorn.

1. First, while the game was just sitting around, some weeds may have started to grow in your garden while your game was just sitting there. Harvest the weed by clicking on them and there is a chance that some of the weeds might leave "Brown Mold" or "Crumbspore" in their place. For now, just click on

those to get rid of them as well. You'll want them later but ignore them for now.

2. For now, just plant your Baker's Wheat in rows across your garden, leaving one blank row in between each row of Baker's Wheat (shown in the image below). This is not the most efficient way to plant in a larger garden but it is for now. More efficient setups can be found later.



The requirement to generate Thumbcorn is an empty plot with at least 2 mature baker's wheat plants in the 8 plots surrounding it. Other combinations for other plants are given in the list of recipes below.

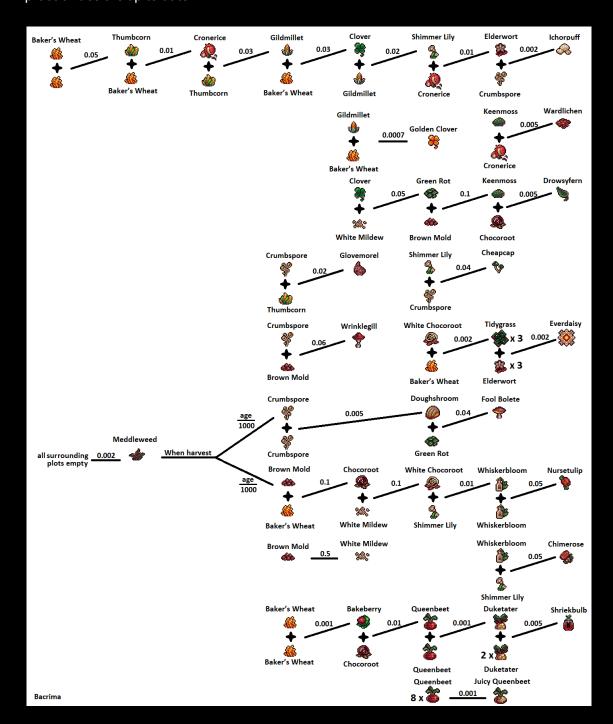
3. If you don't fill your entire garden (because you don't have enough cookies or something), you just want to make sure that there are no plots which are empty and are surrounded by all empty plots. This is a space where a weed could possibly grow. If you don't have enough cookies to plant enough plants to prevent this, you'll just want to check your garden every few minutes and remove any weeds which may have grown.

- 4. Once you have all of your Baker's Wheat planted, you'll want to change your soil to fertilizer, because this makes the plants grow faster, and plants need to be mature to generate new mutations (like Thumbcorn). Fertilizer also makes weeds more likely to grow though so watch out for those and remove them if they start to grow.
- 5. Once your Baker's wheat is all mature, change your soil to wood chips if you have it unlocked (you need 300 farms to use woodchips). If you don't have wood chips unlocked, just leave your soil on fertilizer. Wood chips make plants grow at an average speed, but also make mutations 3x more likely.
- 6. Now just wait for Thumbcorn to appear in the empty slots! Each tick (shown by the timer above the soils), each empty plot which has at least 2 mature Baker's wheat plants in its 8 neighbours has a chance to spawn a Thumbcorn plant.
- 7. If a Thumbcorn plant spawns, great! But don't uproot it yet. You will only obtain the seeds from a plant if you uproot it once it is mature. So wait for the Thumbcorn to reach maturity (around 8-10 minutes with fertilizer), then uproot it to get the seeds.
- 8. If a Thumbcorn plant doesn't spawn and your Baker's wheat all grow too old and die, just replant your garden and try again!
- 9. If you follow these steps, you should have Thumbcorn unlocked in about a half hour or so. And from there, you can use Baker's wheat and Thumbcorn together to breed Cronerice, and then use Cronerice to breed other stuff, and that's how the garden works! Many more details on the exact probabilities and requirements for generating new plants can be found below. Please visit the cookie clicker Discord here. There are lots of knowledgeable people there who will probably be willing to help.

Recipes for Plant Mutations

Here are the crops which are obtainable in the version above and all possible combinations of neighbour crops which can produce the given new crop in an empty plot. Neighbour crops are in the 8 plots around a plot. The decimals listed are the probabilities for that mutation (more info below). All quantities are assumed to refer to that **number of** *mature* **crops unless**

otherwise specified (like when it says 'any'). All of the mutations listed below as well as the probabilities are up to date.



Plant	Mutation Recipe	Probability
Baker's wheat	2x Baker's wheat	0.2
	2x Thumbcorn	0.05

Thumbcorn	2x Baker's wheat	0.05
	2x Thumbcorn	0.1
	2x Cronerice	0.02
Cronerice	1x Baker's wheat, 1x Thumbcorn	0.01
Gildmillet	1x Cronerice, 1x Thumbcorn	0.03
Ordinary clover	1x Baker's wheat, 1x Gildmillet	0.03
	2x mature Ordinary clover, less than 5x total Ordinary clover	0.007
Golden clover	1x Baker's wheat, 1x Gildmillet	0.0007
	2x mature Ordinary clover, less than 5x total Ordinary clover	0.0001
	4x or more Ordinary clover	0.0007
Shimmerlily	1x Clover, 1x Gildmillet	0.02
Elderwort	1x Shimmerlily, 1x Cronerice	0.01
	1x Wrinklegill, 1x Cronerice	0.002
Bakeberry	2x Baker's wheat	0.001
Brown mold	1x White mildew, 1x or less any age Brown mold	0.5
White Mildew	1x Brown mold, 1x or less any age White mildew	0.5
Chocoroot	1x Baker's wheat, 1x any age Brown mold	0.1
White Chocoroot	1x Chocoroot, 1x any age White mildew	0.1
Meddleweed	1x Meddleweed, 3x or less total Meddleweed	0.15
	All surrounding plots empty	0.002
Whiskerbloom	1x Shimmerlily, 1x White chocoroot	0.01
Chimerose	1x Shimmerlily, 1x Whiskerbloom	0.05
	2x Chimerose	0.005
Nursetulip	2x Whiskerbloom	0.05
Keenmoss	1x Green rot, 1x Brown mold 0.1	
	Exactly 1x mature Keenmoss, 0x other Keenmoss	0.05
Drowsyfern	1x Chocoroot, 1x Keenmoss	0.005
Wardlichen	1x Cronerice, 1x Keenmoss	0.005

	1x Cronerice, 1x White mildew 0.005		
	Exactly 1x mature Wardlichen, 0x other Wardlichen 0.05		
Queenbeet	1x Bakeberry, 1x Chocoroot 0.01		
Juicy queenbeet	8x Queenbeet	0.001	
Duketater	2x Queenbeet	0.001	
Crumbspore	1x mature Crumbspore, 0x other Crumbspore	0.07	
	2x Doughshroom	0.005	
Doughshroom	2x Crumbspore	0.005	
	1x mature Doughshroom, 0x other Doughshroom	0.07	
Glovemorel	1x Crumbspore, 1x Thumbcorn	0.01	
Cheapcap	1x Crumbspore, 1x Shimmerlily 0.03		
Fool's Bolete	1x Doughshroom, 1x Green rot 0.02		
Wrinklegill	1x Crumbspore, 1x Brown mold 0.06		
Green rot	1x White mildew, 1x Ordinary clover 0.05		
Shriekbulb	1x Wrinklegill, 1x Elderwort	0.001	
	5x Elderwort	0.001	
	3x any age Duketater	0.005	
	4x any age Doughshroom	0.002	
	5x Queenbeet 0.0		
	Exactly 1x any age Shriekbulb, 0x other Shriekbulb	0.005	
Tidygrass	1x Baker's wheat, 1x White chocoroot	0.002	
Everdaisy	3x Tidygrass, 3x Elderwort 0.002		
Ichorpuff	1x Elderwort, 1x Crumbspore 0.002		

Golden clover note: This means that in order to be able to only grow a Golden clover, and have no chance of spawning an Ordinary clover, you should have at least 5 Ordinary clovers around each open plot with at least 4 or them being mature. In order to have the highest mutation rate using only Ordinary clovers, albeit with the possibility of generating regular clovers, you should have exactly 4x mature Ordinary clovers around each open plot. **A set-up**

with Baker's wheat and Gildmillet is better regardless as it allows for more space thus more chances to get a Golden clover.

Wardlichen note: Since White mildew also has a high probability of generating Brown mold, it is usually better to use Keenmoss to obtain Wardlichen.

Meddleweed, Brown mold, and Crumbspore

You may notice that Meddleweed is only produced by itself and Brown mold and White mildew produce each other according to this list above. This is because these are actually first produced via a different means:

Meddleweed has a 0.2% chance of spawning in a viable weed-spawning plot every tick. A viable weed-spawning plot is one with no other plants in any of its 8 neighbouring plots. Note that this means that weeds *can* still spawn on the edge of the garden as long as all of the plots around them are still empty. After it has spawned, it can spread, according to the list of mutations above. Having the soil set to fertilizer will make weeds spawn much more frequently.

Brown mold or Crumbspore can be produced upon the harvest of Meddleweed. The older the Meddleweed was when it was harvested, the greater the chance of producing one of these. A plant decaying is not the same as harvesting and Meddleweed will not produce Brown mold or Crumbspore if it decays. The exact formula for the chance of spawning one of these is:

If (random value between 0 and 1) < (0.2*(age/100))

then spawn either Brown mold or Crumbspore (50% chance for each)

White mildew is then obtained from Brown mold according to the list above.

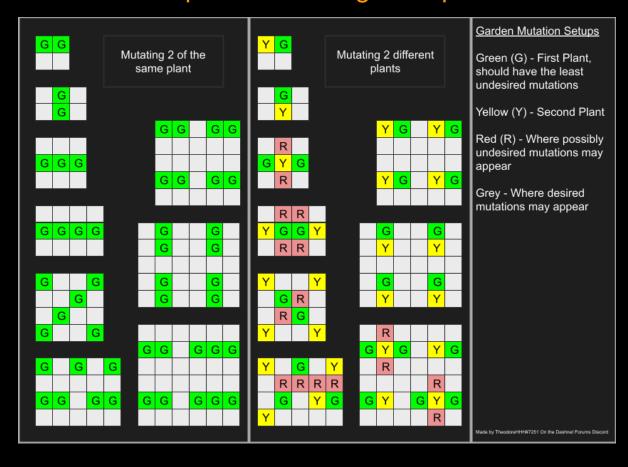
Plant Mutation Mechanics

Here is some more info on exactly how plant spreading works:

- On every tick, possible mutations are calculated for every empty plot
- Only mature crops count for generating new mutations (for the most part, see the next bullet point). For weeds and fungi, they do not need to be mature to prevent fungi of different types from spreading, however they do need to be mature to spread themselves.
- Sometimes plants do not need to be mature to generate a mutation. These cases are specified in the list of mutations above
- Weeds only spawn in a plot if no other plants are in any of its surrounding plots
- On each tick, each empty plot has a chance of being filled with a mutation.
 Here are the steps to generate a mutation:
- 1. First, the list above is used to generate a list of possible mutations and a probability associated with each possible mutation (also listed above)
- 2. For each possible mutation that is found, a random number between 0 and 1 is generated
- 3. If this random number is less than the probability associated with that mutation AND EITHER the chosen mutation is not a weed OR the random number is less than the current soil's weed multiplier (see below for weed multiplier numbers), that mutation is added to an unweighted list. Currently the only weed in the game is Meddleweed. White Mildew and Brown Mold are Fungi.
- 4. From all mutations added to that list, one is then randomly chosen and that mutation is created in the empty plot
- 5. For all soil types except for wood chips the grid of plots is looped through once with this process. For wood chips the grid is looped through 3 times.
- Note that because having weeds are actually required to breed some crops and using wood chips (which boost mutation rate but decrease weed growth) exclusively is not the fastest way to go about getting them. The quickest way to obtain those crops is actually to use fertilizer and allow weeds to grow then plant the necessary crops to breed the new crops you desire and then switch to wood chips
- In order to obtain seeds for a new plant, the new plant must be harvested when mature

- Having more than the necessary amount of neighboring mature plants for a mutation does not increase the likelihood of obtaining that mutation. Only using wood chips and having more empty plots with the appropriate neighbors helps
- It should also be noted that 'savescumming', that is, saving the game before a random event occurs and then reloading if the desired result is not obtained, can be used to increase your chances of obtaining a desired mutation. You can also open multiple tabs of the game and wait for the event to happen, then continue playing in the tab that gives you the outcome you desire. These are strategies which are in use by some, and whether or not they are cheating is left to the individual. Play the game as it is fun for you.
- Ichorpuff has the ability to extend the lifetime of plants by slowing their aging rate. This may be useful to extend the window of maturity of plants so that their breeding window is larger.
- Ichorpuffs are no longer able to be used to achieve a negative aging multiplier, meaning that plants can no longer age backwards. They can, however, virtually stop plant aging if you surround a plant with enough Ichorpuffs. With 8 mature ichorpuff neighbours and clay soil, a plant's aging will essentially come to a halt.

Optimal Breeding Set-ups



Optimal Everdaisy Breeding Set-ups

Everdaisy Setups		Everdaisy Setups With Growing Juicy Queenbeet (Rotale and/or tip setups if necessary)	Everdasiy Mutation Setups Yellow (E) - Elderwort Green (T) - Tidygrass Purple (Q) - Juicy Queenbeet Grey - Everdaisy Mutation Spots Red (R) - Blank Spots That Everdaisy Can't Mutate Into
T T T	T T	T T T R	
<u> </u>			Made by 2 Skines#7251 On the Dashnet Forums Discord
T T	EEEEE	E E E T	Alternate IOD Conte
EEE	Т	E Q E T	Alternate JQB Spots (Rotate and/or flip setups if necessary)
	TTTTT	EEETT	
TTTT			ETTEET
T T	T T T T T	ETTEET	T
E E E E	T	T	EEETTE
	EEEEE	EEETTE	E Q E E E
EEEE	T T	E Q E E	E E E T
T T	T T T T T	EEETTE	RRTTTE
TTTT			
TEEE	EEEEE	REEEET	E T T T T R
	T T T T	TTTT	T E T
TTETT	T T T	TTTE	TEEEET
T E T	EEEEEE	E E E T E	R E Q E T
T E T	Т	E Q E E	REEE
TTETT	TTTTTT	EEETTE	RRRTTE

Speedsaccing Guide

This guide will assume that you have a level 9 garden. Otherwise, the general plant order will still apply, but some specifics will be incorrect.

"Pro tip:" Indicates more advanced strategies.

Step 1: Meddleweed

If you're not doing anything in your current ascension, you may use this strategy:

- Ascend
- Check if a Meddleweed has spawned (since there is one tick of the garden on ascension)
- Repeat

This will get you a Meddleweed in a couple minutes or less.

If you are doing something in your current ascension, such as stocks, you may either leave your garden empty for a bit hoping for Meddleweed, or try to mutate it using only a portion of the available garden space, while using the rest for step 2.

Step 2: Bakeberry - Queenbeet Use the following setup:



While doing so, you should also let a Thumbcorn (possibly 2, in a non-edge spot) live, in order to mutate a Cronerice and get the Thumbcorn seed.

After mutating the Bakeberry, you should go for Brown mold (and hopefully also Crumbspore, but lower priority). Plant Meddleweed in all spots that couldn't overtake a plant, meaning anything except the cardinal directions. Example setup on following page:



Pro tip: Plant some Baker's wheat in at least the not necessary spaces to be ready for the Brown mold mutation.

You may also choose to plant Meddleweed in those spots, however be careful not to let them mature.

Harvest all of the Meddleweed as soon as one of them gets faded out (this will get the two drops the most consistently), until you have brown mold, and also Crumbspore if your Bakeberry and Cronerice are not yet close to being mature.

With the Brown mold (not mature) and a Baker's wheat, mutate Chocoroot. Once the Bakeberry gets close to mature, mutate Queenbeet using it and Chocoroot.

With extra space that you have after getting the Brown mold and before the Queenbeet is mature, do some miscellaneous mutations

Most important lines to do are Cronerice (use the one you mutated, not from seed) -> Gildmillet -> Clover -> Shimmerlily (You may also want to use it for Wardlichen if possible) AND Chocoroot -> White chocoroot -> Tidygrass

Pro tip: When mutating Wardlichen with Cronerice + White mildew, you can use immature Brown mold to block the Brown mold mutation of White mildew

Step 3: JQB JQB takes a long time to mutate, around 2 days on average with efficient play. At the start of going for JQB, you should plant a 5x5 setup as seen on the following page:



Use the space on the edge to mutate Duketater and Elderwort (Pro tip: try to align the Cronerice maturation with the Queenbeets) and possibly other plants (such as Wardlichen with the already grown Cronerices) if you didn't get many plants before the Queenbeet.

Pro tip:

If you have time before going to sleep after your third set of Queenbeets and thus won't be losing a Queenbeet set, you may try to mutate something on the edge using this setup:



In this setup, the Keenmoss is the more volatile plant and the Chocoroot is the less volatile plant. This is usually used for plants like Tidygrass or Drowsyfern

After getting Elderwort and Duketater, you may switch to a full garden setup: Plant the whole garden full of Queenbeet, then poke 4 holes to maximise the sum of the overlap those holes have from their 8 Queenbeets.

If you don't want to do this (due to effort or due to not being able to be there to do so, such as for an overnight setup) you should use the standard 6x6 setup, as seen on the following page:



Step 4: Rest of important plants
After getting a JQB, surround it with Elderwort.

If you don't have Tidygrass yet, get it ASAP.

If your sleep timing wouldn't interfere, plant other Elderwort to use for Everdaisy later (see Everdaisy setups in garden guide), else plant them before going to sleep

While the Elderworts are growing, do Drowsyfern (try to mutate it in a spot that will still let you get 7 Everdaisy spots), and other miscellaneous mutations

Once the Elderwort are close enough to mature, plant Tidygrass and mutate Everdaisy.

After you get Everdaisy, use the Elderworts to mutate Ichorpuff

Step 5: Cleanup

Get all the other plants while those are maturing.

Order them approximately such that long maturation time plants are first, while doing plants with overlap in parents simultaneously.

Hopefully you have all the plants before the JQB matures.

Pro tip: Use fertilizer as often as possible, using wood chips only for the mutations important for getting JQB as fast as possible: Bakeberry, Queenbeet, JQB, Elderwort (if after JQB mutated, else you get the wood chips buff from doing it during JQB mutation), and if you have to other mutations to make sure you get them before the JQB matures, more relevant for hard mutations such as Golden clover or Ichorpuff.

Pro tip: Use supreme intellect except when you're doing JQB mutation (which includes growing the Queenbeets)

Usage for combos

The main ways you can use garden for combos is by using a Nursetulip + Golden clover setup to massively boost golden cookie frequency. After this you should replant with just Whiskerbloom.

The way you achieve this setup is by filling the garden with Nursetulips, and when they come close to mature, see what rows/columns will mature closest to each other. Then fill the remaining rows/columns with Golden clovers when they'll mature with the rest of the Nursetulips. This will leave you with this setup, potentially rotated in any multiple of 90°.



Once you have all natural effects of your combo, you should switch to the following setup. The Nursetulips on the top show where they would be for this setup to work, and you would rotate/mirror this setup depending on where your Nursetulips are.



Alternatively, an easier replant would be a full garden of Whiskerblooms. The setup with Glovemorels is 0.7% better but harder to execute. If you do not want to replant, you can instead freeze your garden to nullify the negative effects of Nursetulips whilst also saving the time it would have taken to replant.

Soil Type Data

	Tick Length (min)	Effect Multiplier	Weed Spawn Multiplier	Unlock Requirement
Dirt	5	1	1	1
Fertilizer	3	0.75	1.2	50
Clay	15	1.25	1	100
Pebbles	5	0.25	0.1	200
Woodchips	5	0.25	0.1	300

- The effect multiplier affects the passive effects of plants
- The weed spawn multiplier affects how likely weeds are to spawn in the soil
- The unlock requirement is how many farms are needed for the soil to become available to use

You can only change soil types once every 10 minutes, however you can spend a sugar lump to reset this timer and change immediately. Spending a sugar lump to do this also makes plants spread and mutate 3x more during the next tick

Plant Aging

On each tick, the age of each crop in the field's age is updated. It is increased by the following formula:

newAge = CustomRounding[oldAge+(ageTick)+(randomAgeTick)*(random number 0-1)]

NOTE: "Custom Rounding" is defined as rounding up the number with a probability of the decimal part of it, otherwise it rounds down. For example, a plant with the age 42.90 has a 90% chance of rounding up to 43 and a 10% chance of rounding down to 42.

Due to the implicit use of the floor function in integer operations, newAge is always an integer, meaning a round number. This has the effect of causing some plants not to age at all during a certain tick if their age increment is less than 1.

If the age of a plant is greater than or equal to the plant's maturity age, the plant's maturity is set to stage4 (mature). If it's age is greater than or equal the the maturity age * 0.666, it is stage3 (bloom), >= maturity age * 0.333, stage2 (sprout), otherwise it is stage1 (bud).

NOTE: When a plant has the possibility of decaying in the next tick, it will appear semi-transparent.

Contamination

Contamination is a mechanic that currently applies to Meddleweed, Doughshroom, and Crumbspore. It allows for these plants to take over neighbouring plots, even if there are already other plants there. Contamination works only in the 4 cardinal directions (up, down, left, right).

Several plants are immune to contamination. They are:

- Elderwort
- Queenbeet
- Juicy Queenbeet
- Duketater
- Crumbspore

- Doughshroom
- Shriekbulb
- Everdaisy

NOTE: Doughshroom and Crumbspore are able to contaminate other plants, but are not able to be contaminated.

The exact process by which contamination takes place is fairly complex, but the basic outline is as follows:

- 1. Once per tick, check each plot in the garden
- 2. If there is a plant in that plot and that plant is not immune to contamination, continue
- 3. For each plant which is capable of contamination, roll a random number 0-1
- 4. If that number is less than the plant's contamination number, add that plant to a list
- 5. Once the list of possible contaminating plants has been formed, randomly choose one plant from that list
- 6. For each of the cardinal directions, it is then possible that that plant is contaminated.

I don't fully understand this mechanic to be honest, so I don't have much more detail than this which I can explain easily. But know that if you have a plant which is mature and able to contaminate, other plants neighbouring it in the 4 cardinal directions may be overtaken. The relevant code can be found <u>here</u> if anyone wants to take a look.

Plant Info

The basic information about each plant can be found below. The 4th column assumes base ticks.

Plant	Effect(s)	Price / cps	(Avg.) Ticks to Mature/Decay
Baker's Wheat	+1% CpS	1 minute, min. 30 cookies	Mature: 5 Decay: 13

Thumbcorn	+2% cookies per click	5 minutes, min. 100 cookies	Mature: 3 Decay: 15
Cronerice	+3% grandma CpS	15 minutes, min. 250 cookies	Mature: 74 Decay: 134
Gildmillet	+1% golden cookie gains +0.1% golden cookie effect duration	15 minutes, min. 1500 cookies	Mature: 15 Decay: 37
Clover	+1% golden cookie frequency	25 minutes, min. 77777 cookies	Mature: 20 Decay: 58
Golden Clover	+3% golden cookie frequency	2 hours 5 minutes, min. 777.778 billion cookies	Mature: 5 Decay: 10
Shimmerlily	+1% golden cookie frequency +1% golden cookie gains +1% item drops	1 hour, min. 777777	Mature: 9 Decay: 13
Elderwort	+1% wrath cookie gains +1% wrath cookie frequency +1% grandma CpS Immortal (immune to contamination and decay) surrounding plants (3x3) age 3% faster	3 hours, min. 100 million cookies	Mature: 164 Immortal
Bakeberry	+1% CpS Harvest when mature for +30 minutes of CpS (capped at 3% of bank)	45 minutes, min. 100 million cookies	Mature: 34 Decay: 67
Chocoroot	+1% CpS Harvest when mature for +3 minutes of CpS (capped at 3% of bank) predictable growth	15 minutes, min. 100000 cookies	Mature: 7 Decay: 25

White Chocoroot	+1% golden cookie gains Harvest when mature for +3 minutes of CpS (caped at 3% of bank) predictable growth	15 minutes, min. 100000 cookies	Mature: 7 Decay: 25
White Mildew	+1% CpS may spread as brown mold	20 minutes, min. 9999 cookies	Mature: 5 Decay: 8
Brown Mold	-1% CpS may spread as white mildew	20 minutes, min. 9999 cookies	Mature: 5 Decay: 8
Meddleweed	useless may overtake nearby plants Sometimes drops Brown Mold or Crumbspore when uprooted	1 minute, min. 10 cookies	Mature: 4 Decay: 8
Whiskerbloom	+0.2% milk effects	20 minutes, min. 1 million cookies	Mature: 20 Decay: 34
Chimerose	+1% reindeer gains +1% reindeer frequency	15 minutes, min. 242424 cookies	Mature: 18 Decay: 58
Nursetulip	Surrounding plants (3x3) are 20% more efficient -2% cps	40 minutes, min. 1 billion cookies	Mature: 40 Decay: 67
Drowsyfern	+3% CpS -5% cookies per click -10% golden cookie frequency	1 hour 30 minutes, minimum 100000 cookies	Mature: 300 Decay: 1000
Wardlichen	2% less wrath cookies wrinklers spawn 15% slower	10 minutes, minimum 10000 cookies	Mature: 10 Decay: 15
Keenmoss	+3% item drops	50 minutes, minimum 1 million cookies	Mature: 10 Decay: 16
Queenbeet	+0.3% golden cookie effect	1 hour 30 minutes, min. 1 billion	Mature: 67

	duration -2% CpS harvest when mature for +1 hour of CpS (max. 6% of bank)	cookies	Decay: 84
Juicy Queenbeet	-10% CpS surrounding plants (3x3) are 20% less efficient harvest when mature for a sugar lump	This seed can not be planted.	Mature: 1063 Decay: 1250
Duketater	harvest when mature for +2 hours of CpS (max. 8% of bank)	8 hours, min. 1 trillion cookies	Mature: 212 Decay: 223
Crumbspore	explodes into up to 1 minute of CpS at the end of its life cycle (max. 1% of bank) may overtake nearby plants (contamination)	10 minutes, min. 999 cookies	Mature: 15 Decay: 23
Doughshroom	explodes into up to 5 minutes of CpS at the end of its life cycle (max. 3% of bank) may overtake nearby plants	1 hour 40 minutes, min. 100 cookies	Mature: 43 Decay: 50
Glovemorel	+4% cookies per click +1% cursor CpS -1% CpS	30 minutes, min. 10000 cookies	Mature: 7 Decay: 9
Cheapcap	buildings and upgrades are 0.2% cheaper cannot handle cold climates; 15% chance to die when frozen	40 minutes, min. 100000 cookies	Mature: 3 Decay: 8
Fool's bolete	+2% golden cookie frequency -5% golden cookie gains -2% golden cookie duration	15 minutes, min. 10000 cookies	Mature: 3 Decay: 6

	-2% golden cookie effect duration		
Wrinklegill	wrinklers spawn 2% faster wrinklers eat 1% more	20 minutes, min. 1 million cookies	Mature: 26 Decay: 40
Green rot	+0.5% golden cookie duration +1% golden cookie frequency +1% item drops	1 hour, min. 1 million cookies	Mature: 4 Decay: 6
Shriekbulb	-2% CpS surrounding plants (3x3) are 5% less efficient	1 hour, min. 4.444 trillion cookies	Mature: 18 Decay: 29
Tidygrass	surrounding tiles (5x5) develop no weeds or fungus	1 hour 30 minutes, min. 100 trillion cookies	Mature: 80 Decay: 200
Everdaisy	surrounding tiles (3x3) develop no weeds or fungus	3 hours, minimum 1 quintillion cookies	Mature: 251 Immortal
Ichorpuff	surrounding plants (3x3) ages half as fast surrounding plants (3x3) are half as efficient	2 hours, minimum 987.654 million cookies	Mature: 20 Decay: 58

Garden Tools

There are currently 4 tools available in the game for the garden:

- Garden Information

- Provides information on the current state of your garden
- Gives buff lengths, power, etc.
- Also provides a little information in the tooltip on how the garden works on a very basic level

- Harvest All

- Harvests all crops in the garden.

- This counts as a regular harvest for all harvested mature crops
- Actually harvests twice so may kill brown mold/crumbspore that may spawn after harvesting weed
- If you harvest a crop which has a chance to produce another crop on death, the production of that new crop is still possible when using this tool

- Freeze

- Your garden is essentially frozen in time
- You will gain no benefits from buffs
- Timer for a tick continues until zero even while it's frozen. Additional ticks will not occur until the garden is unfrozen.

Sacrifice Garden ('Convert')

- This is only available once all plant seeds have been unlocked
- This allows you to sacrifice your entire garden and all unlocked seeds (except for Baker's Wheat) in exchange for 10 sugar lumps.
- Essentially you go back to the very beginning with your garden size still kept in exchange for 10 sugar lumps
- The fastest way to farm lumps if done well
- You unlock the achievement 'Seedless to Nay' by using this tool

Garden Achievements

Botany Enthusiast

- Harvest 100 mature garden plants

Green, aching thumb

Harvest 1000 mature garden plants

In the garden of Eden (baby)

- Fill every tile of the biggest garden plot (level 9 - 6x6) with plants

Keeper of the Conservatory

- Unlock every garden seed

Seedless to Nay

 Convert a complete seed log into sugar lumps by sacrificing your garden to the sugar hornets (use the 'Convert' tool)

Garden Drops/Upgrades

There are several upgrades in the game which are obtained by harvesting specific plants. These will only have a chance to drop if the plant is harvested when mature. The probability listed with each upgrade is the chance that the upgrade is unlocked when that plant is harvested. Once unlocked, these upgrades stay unlocked forever (across ascensions), but unbought upon reincarnation.

Name	Plant	Chance	Effect(s)
Elderwort Biscuits	Elderwort	0.01	Cookie production multiplier +2%Grandma production multiplier +2%
Bakeberry Cookies	Bakeberry	0.015	- Cookie production multiplier +2%
Fern tea	Drowsyfern	0.01	 You gain another +3% of your regular CpS while the game is closed
Duketater Cookies	Duketater	0.005	- Cookie production multiplier +10%
Green yeast digestives	Green Rot	0.005	 Golden cookie gains and effect duration +1% Golden cookie frequency +1% +3% random drops
lchor syrup	Ichorpuff	0.005	 You gain another +7% of your regular CpS while the game is closed Sugar lumps mature 7 minutes sooner
Wheat Slims	Baker's Wheat	0.001	- Cookie production multiplier +1%

NOTE: The effect on offline production from Fern tea and Ichor Syrup only applies if you already have the Twin Gates of Transcendence Heavenly Upgrade.

Since these are a bit rare, you should try to make them more common. The relevant ways for getting these more commonly are:

- Cosmic beginner's luck (heavenly upgrade, before buying heavenly chip secret): 5 times more common
- Mind over matter (dragon aura): 25%
- Reality Bending (dragon aura): 2.5%
- Dragon teddy bear (dragon drop): 3%
- Santa's bottomless bag (Santa level): 10%

- Green yeast digestives (garden drop): 3%
- Keenmoss [plant when harvesting a plant you are trying to get garden drop for small boost] (plant, boost when mature): 3%

Other Garden Guides

<u>Garden Calculator</u> - helps in simulating garden set-ups, percent chances may be inaccurate in certain scenarios

Scumming Guide - for those that want to get the plants through savescumming