

Growing *Panaeolus Tropicalus* and *Panaeolus Cyanescens*

Version 1.0

by

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original source: <http://mycotopia.net/archives/discus/messages/5/1405.html>

This is a document of collected knowledge from our own experience with pans and talking with other growers. Thank you everybody for your input over the years. More to come

Its well known this is not a very easy species of mushroom to grow, but it can be done, and is done quite often. Just count on a little extra work and some TLC.

Ok, for starters, if your using a spore syringe, inoculate your substrate jars of 3:5 ratio of ground brown rice to vermiculite or 2:1 of finch or birdseed to vermiculite. If your using agar with a spore print, then your obviously experienced and we don't need to go into much detail there. After your substrate is inoculated, you will see a very thin and wispy mycelium. Its not thick and rhizomorphic and healthy looking like *cubensis* mycelium. On agar, it actually looks like contamination its so strange looking. Sometimes very spongy looking, and wispy looking on agar. Strange stuff man. In jars, the mycelium is almost a light grey color, yet off white, and very thin. It almost looks like cobweb mold its so thin. At times it will even grow what appears to be primodorma and pins, but its not. Its just a very strange looking mycelium at this stage. So unless you start seeing strange colors other then white or a light grey, its ok, just go with it.

Typcial colonization of 1/2 pint jars is around 3-4 weeks. Sometimes faster, but allow them to sit a week after full colonization. You'll see why when you break open the jars and pull the substrate out. It breaks apart very easy. Once again its a weak mycelium. Be sure your handa are very clean, as this mycelium easily contaminates.

The next step is to use that substrate as spawn to colonize either dung or compost. Compost is your best bet. Dung is the next choice. A lot of old books recommends straw, well straw also works but it contaminates much easier on straw then dung or compost. This is not just our opinion, but from many growers we've talked with gave up on straw and pan species. So from here, either buy or make some compost, or go out to your local cow/horse/donkey/elephant field and shuck some patties. So you know how your always leaving your girlfriend at home while you go have fun? Well you need a helper, its time to bring her on a field trip This is a great cover up for where you go on those field trips when you disappear Doh!

If you can find farms that have straw or grain fed animals you have some prime realestate to grow those pans on. If you don't know what they are feeding the cows and are not aware of what they are eating, we recommend you kneel down and sniff the patty! A prime pile of dung will have a nice organic aroma to it.

Stay away from fresh steaming patties. You want the ones that are aging a bit. There are to many micro-organisms on the fresh patties that can kill the spores, plus they 're sticky and they stink. You don't want these. There are some great pictures on our website under the *panaeolus* species of some Manatee County Florida *Panaeolus Cyanescens* growing on dung. These are the best pictures we've seen yet showing clarity of how old the dung is when these mushrooms are growing on them.



Ok, so you and your gal are out in the field under the full moon feeling romantic collecting dung. She's happy she's out of the house, your happy because your bucket is full of dung, time for a bud. Your choice, weiser or herb.

The next step is to prepare your dung. Usually its pretty hard when you pick it right. Toss it in a big bucket and pour in a gallon of purified water or more, so its covered in water, and let it sit for day to soften up. Next step, a day later is to pasturize your dung or compost.

Pasturizing is a form of sterilizing the compost or dung in less than boiling water to eliminate many non-beneficial bacteria unhealthy to mushroom mycelia. There are many methods of doing this, but here is what we recommend. Take your dung or compost and put it in an old pillow case, then tie it in a knot. Get a large pot, something like 22-30 quart and fill it with water. We always recommend against tap water, spend \$.50 cents and buy a gallon of filtered drinking water. Fill up your pot of water to about 8-10 inches from the top, turn up the heat on your stove. You want the water temp between 160F-180F, which usually is steaming heavily, but not boiling rapidly. Put in your mother-in-laws pillow case full of dung, push it down a bit, and let the hot water absorb into it. The temp of the water will drop for a while, wait it will build back up. When it does, let it pasturize for a good 45 minutes and turn off the heat. It will take a while to cool down. When its cool enough, take it outside and let it hang for a day to drip water and cool off. Not to worry, the outside air is good and healthy for it. You can let it sit there for several days if you don't have the time to get back to it. When your ready to work, here we go with the next step.

Ok, were assuming your have knowledge of casing your substrate. Take your dung or compost from your MIL's pillow case and take handfuls and squeeze it real hard until the water is barely dripping. You don't want a lot of water in it or it will be too soggy and contaminate too easily. Squeeze it until the water is barely dripping, and place it in your casing container. Get the desired amount for the space your working with. Take those jars of substrate and start gently crumbling them up with your pasturized compost or dung. Mix it well. We recommend about 3 to 4 1/2 pints of substrate for every 10 lbs of compost. Or, a semi-full pillow of dung or compost, add about 2 1/2 pints of substrate worth. After its mixed well, then add a casing layer. Pans seem to like hydrated lime in the soil. The 50/50+ mix works well. They grow well with the verm/peat/lime/oyster shell mix. Within 2-3 weeks of casing they should start fruiting. Now all the old school books say they like temps around 70F-75F, well, that is not written in stone. In the tropics where they grow, the temps are much warmer. We've seen them grow at a daytime high of 93F, which means substrate temps of 95-96F, and a LOW of 70-75F. There has not been a lot of information posted about this species that is updated, and we hope what we have given you helps. There is a lot more to come, this document will continue to grow and nothing is written in stone. This species is well worth the time and efforts because the experience from Panaeolus species is PHENOMENAL !!!!