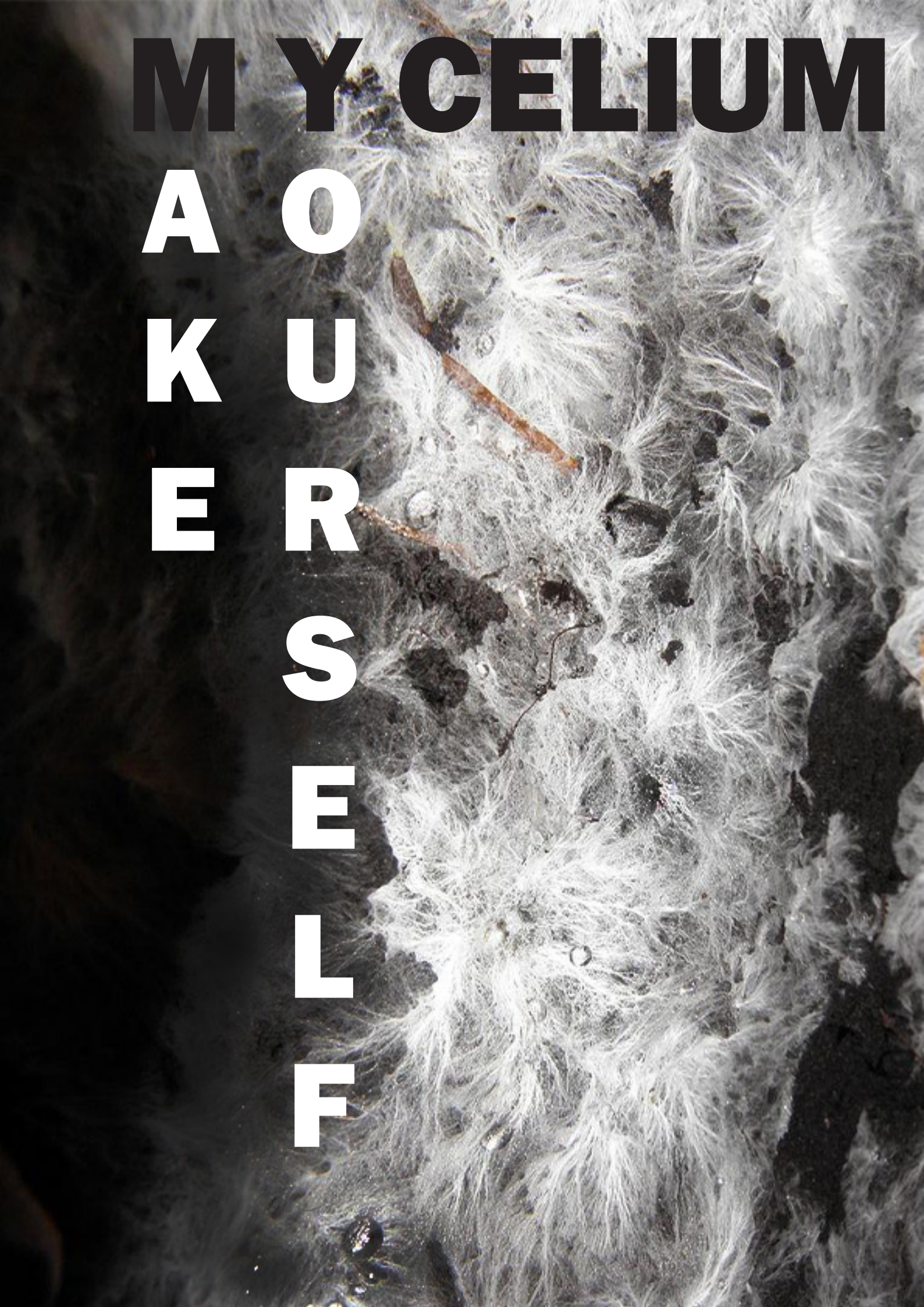
INTRODUCTION

- general introduction (study case)
- which possible spawn, substrate and additives (why?)
- Aim, what to reach?
- GIY potential


MYCELIUM
AWAKE OUR SELF

SPAWN

SUBSTRATES

ADDITIVES



PLEUROTUS CITRINOPILEATUS



STRAW



AGRIWASTE



CARDBOARD



SAWDUST

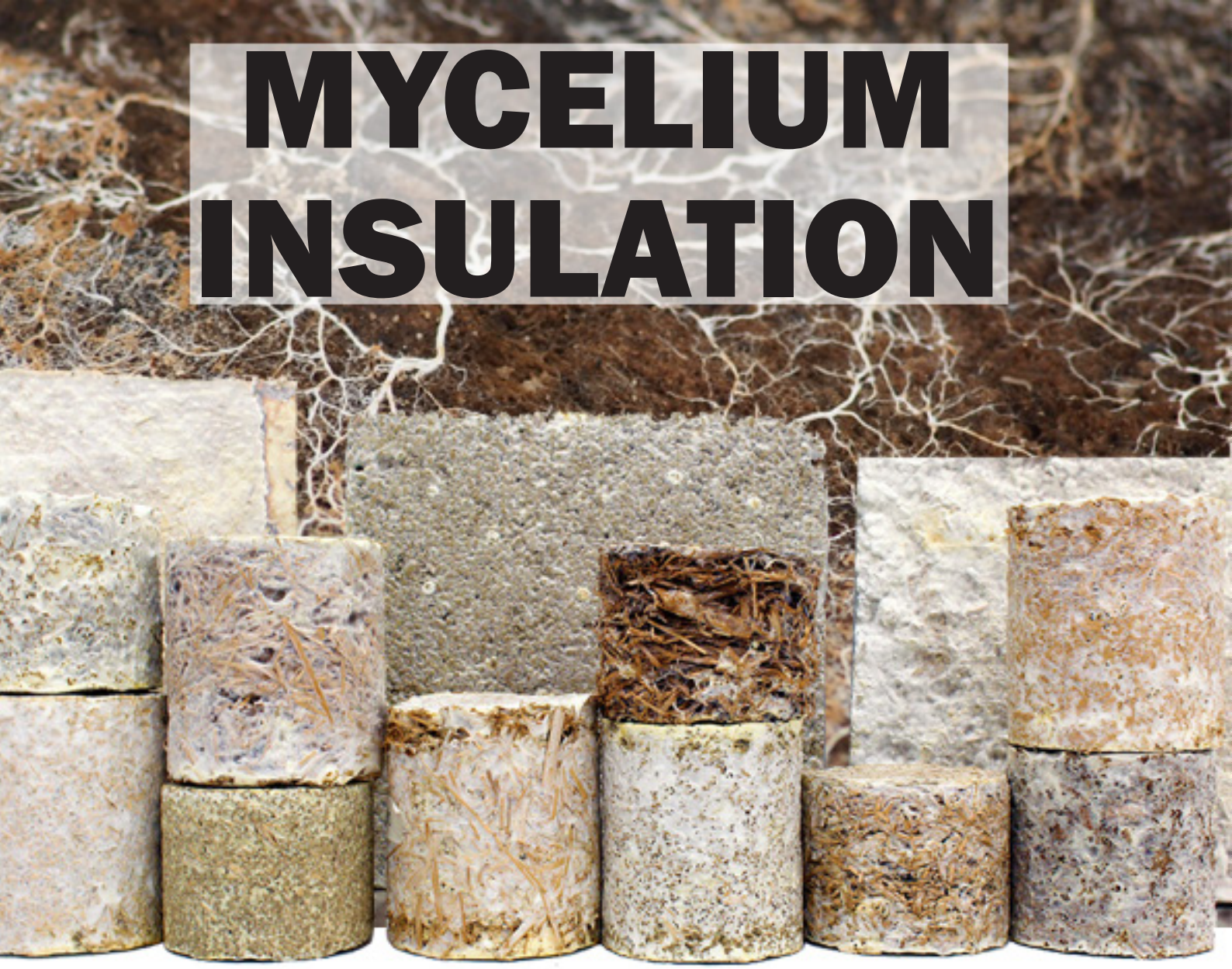


CORNSTARCH



COFFEEWASTE

MYCELIUM INSULATION



Growth Preperation

Substrate and additives treatment

- Cut substrate in small pieces (5cm)
- Boil substrate and additives for 1,5 hour (kill bacteria)
- Cool down the substrate and additives and squeeze
- Clean working area, hands and equipment with 70% alc.
- Ensure to always keep everything sterelized



Mould preperation

- Fill 3/4 of the mould with the substrate (pressure)
- Add spawn and additives in the mould, mix and dense mass
- Close off the box and ensure air circulation
- Best growing conditions
    - Dark spot and air exchange
    - High humidity (65%) and 20°C-25°C temperature

S = Straw
S/20 = Cornstarch
S/10 = Pleurotus Citrinopileatus



S = Straw
S/10 = Cornstarch
S/10 = Pleurotus Citrinopileatus



S = Straw
S/10 = Coffeewaste
S/10 = Pleurotus Citrinopileatus



A = Agriwaste
A/20 = Cornstarch
A/10 = Pleurotus Citrinopileatus



A = Agriwaste
A/10 = Cornstarch
A/10 = Pleurotus Citrinopileatus



A = Agriwaste
A/10 = Coffeewaste
A/10 = Pleurotus Citrinopileatus



C = Cardboard
C/20 = Cornstarch
C/10 = Pleurotus Citrinopileatus



C = Cardboard
C/10 = Cornstarch
C/10 = Pleurotus Citrinopileatus



C = Cardboard
C/10 = Coffeewaste
C/10 = Pleurotus Citrinopileatus



Sa = Sawdust
Sa/20 = Cornstarch
Sa/10 = Pleurotus Citrinopileatus



Sa = Sawdust
Sa/10 = Coffeewaste
Sa/10 = Pleurotus Citrinopileatus



M = Mix
M/10 = Coffeewaste
M/10 = Pleurotus Citrinopileatus



MOULD I



05.03



10.03



15.03



20.03



25.03

MOULD II



05.03



10.03



15.03



20.03

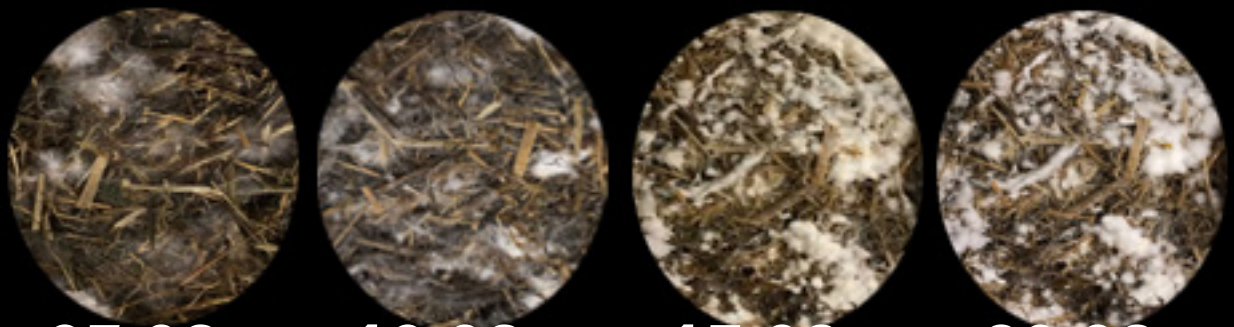


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MOULD III



MOULD IV

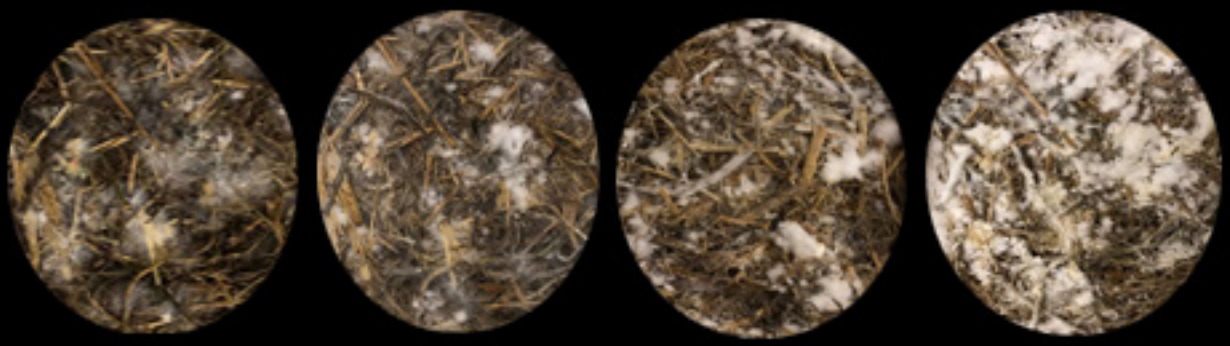


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MOULD V



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MOULD VI



MOULD VII



05.03



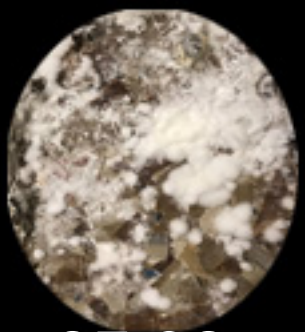
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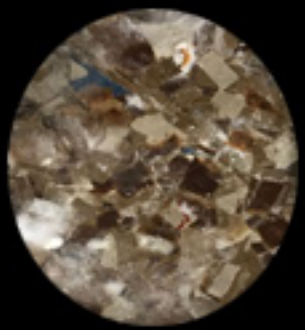


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MOULD VIII



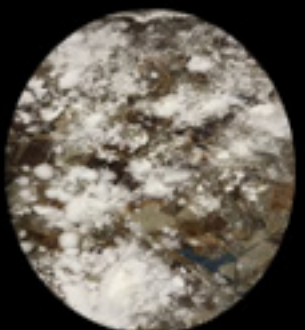
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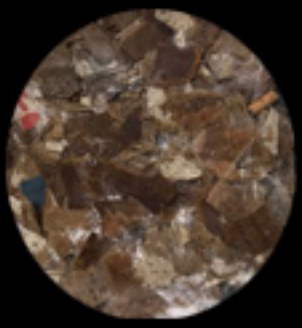


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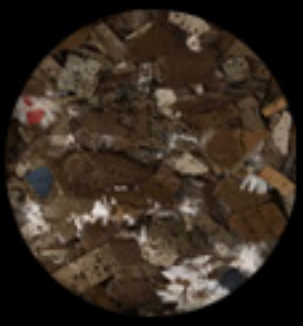


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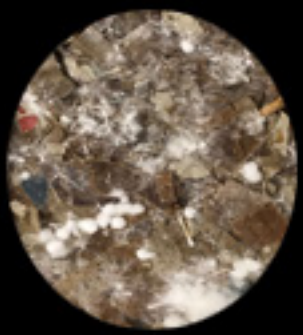
MOULD IX



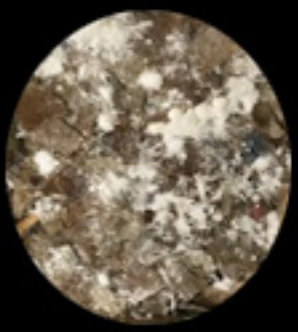
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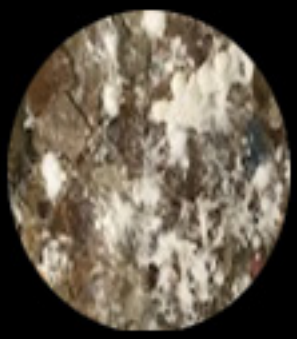
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MOULD X



05.03



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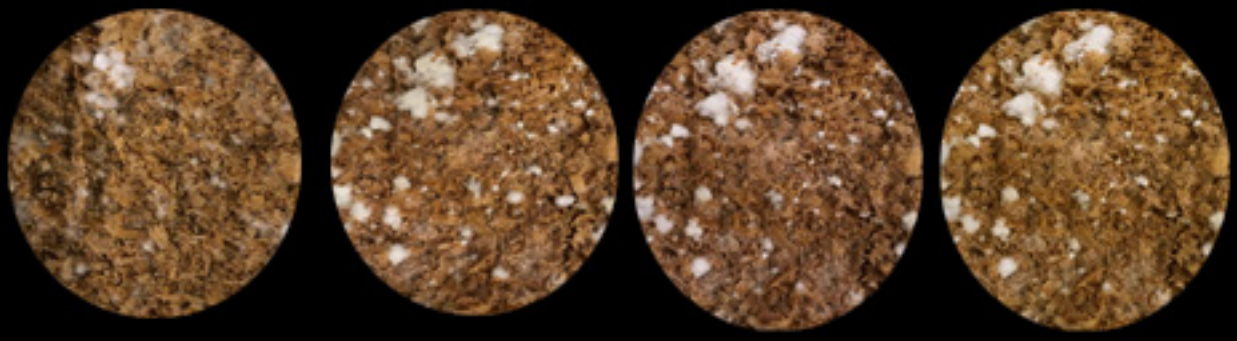


20.03



25.03

MOULD XI

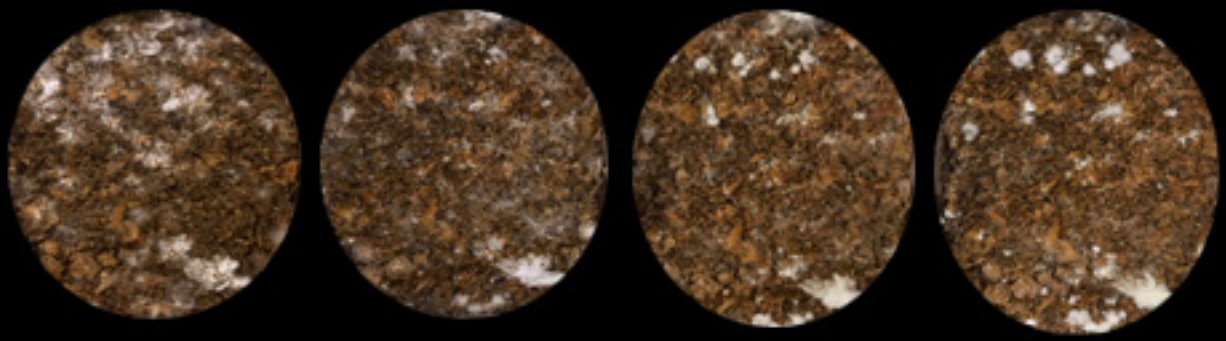


05.03 10.03 15.03 20.03



25.03

MOULD XII



05.03 10.03 15.03 20.03



25.03

CONCLUSION

FAILED RECEIPTS

Mould III/ Mould VI

Both receipts had coffeewaste as additve, which didnt got dried enough, while beiing collected and boiled.
Therefore the additves still had some bacterias which contaminated mycelium. This can be recognized by for example green patches like in my case.

Mould XI/ Mould XII

Sawdust as a substrate turned out to slow down the growing process a lot.
After resarching I found out, mcelium doesn't grow well on softwood, which is our major waste from our workshop.
Using hard wood pellets is therefore of substance. The glue in the plywood gets eaten by the mycelium, so is no problem.

POTENTIAL RECEIPTS

Straw

Straw is essentiaslly a very potential ingredient for growing mycelium.
Because of its high amount of nitrogen it's supporting the growing proces of mycelium.
Preferably with an addition of 20% additives instead of 10% (any rich nitrogen supplement).

MOULD I



Mix (Cardboard, Straw, Agriwaste)

Also the mix of substrates gave a good result.
Because I had some leftovers I added this to the initials of prototypes I made.
By cause of different additions, especially such like nitrogen, the mixture helped the growing process.

MOULD X



OBSERVATIONS

As a general conclusion for all the receipts, I figured out, that the substrates need to be densed and squeezed before filling the mould.
Also, because during the growing process the substrate will shrink, it is important to fill the mould with at least 3/4 of the volume.
Thus you will achieve your wanted thickness.
Also, whenever researching for growing mycelium, the necessarity of sterelizing always gets emphasized.
Specially in the starting process this is very crucial.
But if prefered, because of health reasons, this can be reduced during the growing process though.