



All About Cap



Cap is a white mushroom or *agaricus bisporus*. He is the most popular mushroom in Canada.

Cap is very outgoing and likes to make new friends where ever he goes.

Cap loves being active whether it is playing sports, exercising or dancing, he is always on the move.

Cap hopes that if he studies hard in school, someday he can become a teacher.

How White Mushrooms Grow

Growing white mushrooms takes several weeks. First the mushroom farmer must prepare the compost or substrate. The substrate is the food source for which mushrooms grow. This substrate is pasteurized at 160 F / 71 C to get rid of any bad bacteria. Unlike other plants that grow from seeds, mushrooms reproduce through microscopic particles called spores produced under the cap of the mushroom in the gills. Spawn is made by inoculating a piece of sterile grain with mushroom spores. Farmers can buy spawn from a sterile laboratory where they are produced. The spawn is spread on trays of full substrate in rooms that are climate controlled to promote growth. The root system, consisting of a web-like mass called mycelium, allows the mushroom spores to receive nutrients in the substrate. The substrate is covered with a layer of peat moss. Within three weeks small mushrooms appear on the peat moss. One week after the mushrooms start pinning, they are ready to be harvested. Harvesting the mushrooms is done by hand. Mushrooms are processed, packed and refrigerated quickly before being shipped to restaurants or food stores within 24 hours. The production process from substrate production to market takes approximately three months.

All About Minnie



Minnie is a crimini mushroom or *agaricus bisporus*. She is one of Cap's cousins. She is also Bella's little sister.

Minnie is very creative and loves to paint. Her favourite thing to paint is outdoor scenery.

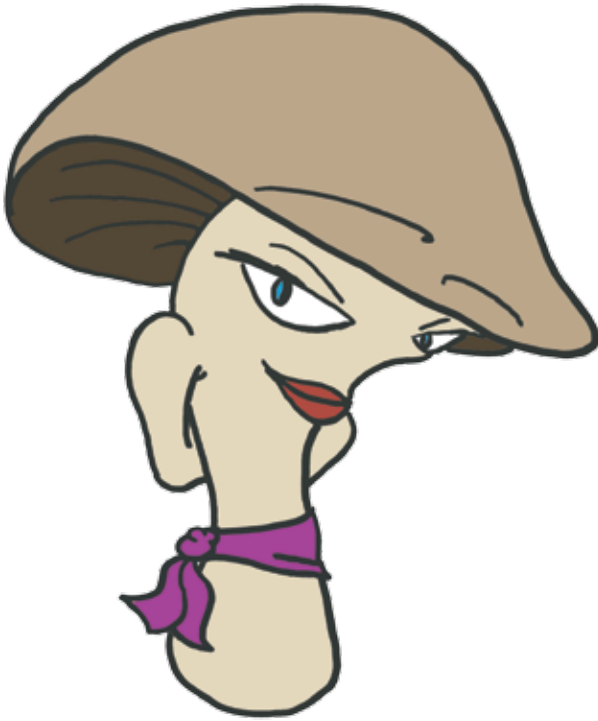
Minnie is very peaceful, but she does have a competitive spirit when it comes to her favourite sport, soccer.

Minnie enjoys taking care of the environment, and hopes that one day she will be a marine biologist.

How Crimini Mushrooms Grow

Growing crimini mushrooms is very similar to growing white mushrooms. The only difference is the type of spore that is used to create the spawn. To begin, the mushroom farmer must create the substrate. The substrate is made of several different type of materials such as stable bedding, poultry litter, feathermeal, straw, and gypsum. This substrate is mixed together and pasteurized at 160 F / 71 C to get rid of any bad bacteria. Spawn is made by inoculating a piece of sterile grain with mushroom spores. Farmers can buy spawn from a sterile laboratory where they are produced. The spawn is spread on trays full of substrate in rooms that are climate controlled to promote growth. The root system, consisting of a web-like mass called mycelium, allows the mushroom spores to receive nutrients in the substrate. The substrate is covered with a layer of peat moss. Within three weeks small brown mushrooms appear on the peat moss. One week after the mushrooms start pinning, they are ready to be harvested. Harvesting the mushrooms is done by hand. Mushrooms are processed, packed and refrigerated quickly before being shipped to restaurants or food stores within 24 hours. The production process from substrate production to market takes approximately three months.

All About Bella



Bella is a portabella mushroom or *agaricus bisporus*. She is one of Cap's cousins. She is also Minnie's big sister.

Bella is very shy and quiet. She is also very friendly and enjoys spending time with her friends.

Bella is very graceful and elegant and uses these skills in her favourite activity, dancing.

Bella hopes that one day she will become a nurse.

How Portabella Mushrooms Grow

Portabella mushrooms are a full grown crimini mushrooms. Growing portabella mushrooms is exactly the same as growing crimini mushrooms. To begin, the mushroom farmer must create the substrate. The substrate is made of several different type of materials such as stable bedding, poultry litter, feathermeal, straw, and gypsum. This substrate is mixed together and pasteurized at 160 F / 71 C to get rid of any bad bacteria. Spawn is made by inoculating a piece of sterile grain with mushroom spores. Farmers can buy spawn from a sterile laboratory where they are produced. The spawn is spread on trays full of substrate in rooms that are climate controlled to promote growth. The root system, consisting of a web-like mass called mycelium, allows the mushroom spores to receive nutrients in the substrate. The substrate is covered with a layer of peat moss. Within three weeks small brown mushrooms appear on the peat moss. One week after the mushrooms start pinning, they are the size of a crimini mushroom. They are not picked at this time, instead they are left to grow for an additional 4-5 days. This allows the portabella to grow to its gigantic size. Harvesting the mushrooms is done by hand. Mushrooms are processed, packed and refrigerated quickly before being shipped to restaurants or food stores within 24 hours. The production process from substrate production to market takes approximately three months.



All About Taki



Taki is a shiitake mushroom or *Lentinus Edodes*.

Taki knows everything about computers and technology. He likes to help his friends out when they have computer troubles.

Taki listens to music on his MP3 player and loves to break dance.

Taki works very hard in school so that one day he can become a computer software developer.

How Shiitake Mushrooms Grow

Shiitake mushrooms were originally grown on natural oak logs. The process took a very long time because it takes up to four years for the mycelium to colonize the wood sufficiently enough to produce shiitakes. When the mushrooms did grow it was only in the spring and fall. One natural oak log could last up to 6 years.

With new technology, mushroom farmers can create artificial logs that produce shiitake mushrooms much faster. Oak sawdust, straw, corn cobs and other organic materials are mulched up and packed into a poly bag where it is sterilized and inoculated with spawn. These bags are placed in environmentally controlled rooms, where the humidity and light are set at the ideal growing conditions for shiitake mushrooms. The man-made logs will start to produce shiitakes in seven weeks. Once the shiitake have started to grow, it takes another 7 days for them to be ready for harvest. Once a log is completely harvested and the first flush is finished, the log is soaked in ice cold water for about 1 hour. This re-activates the mushroom mycelia causing the log to start growing again. This new process takes about 4 months compared to the six year cycle on natural logs.

All About Pearl



Pearl is an oyster mushroom or *Pleurotus Ostreatus*.

Pearl is very stylish and knows everything about fashion. She likes to read fashion and beauty magazine.

Pearl loves going to the mall with her friends and giving them “make-overs.”

Pearl has been working very hard in school so that one day she can become a fashion designer.

How Oyster Mushrooms Grow

Like other mushrooms oyster mushrooms are also grown in an environmentally controlled building. These mushrooms require a bit more humidity and fresh air than the agaricus varieties. Oysters are grown on a range of agricultural and wood waste products including hardwood chips, chopped cereal, straw and corn cobs. After the growing medium is pasteurized it is cooled and then inoculated with oyster spawn and packed into long, tube shaped plastic bags. Holes are punched into the bag to allow for the oxygen to initiate mycelial growth. The bags are either hung or set up on racks in the controlled growing room. The oyster mushrooms will begin to grow out of the holes that were punched in the bag. After about 14 days the mushrooms are ready to be harvested. Like all mushrooms, oysters are also harvested by hand. Pickers will simply cut the mushrooms stem as close to the plastic bag as possible. This will allow for another flush to come through.

All About Noki



Noki is an Enoki mushroom or *Flammulina Velutipes*.

Noki is very energetic. He plays all different kinds of sports. Soccer, Hockey, Basketball, and Skateboarding, he loves them all.

Noki is very funny and always has a joke to tell. He is good at cheering his friends up when they are sad.

Noki hopes that if he trains hard enough, he will be able to become a professional sports coach.

How Enoki Mushrooms Grow

Today's technology uses automated systems and machines to fill plastic bottles with substrate made of many different ingredients including ground corn cob pellets, wheat bran and soybean meal. The bottles are sterilized, inoculated with the mushroom spawn, and placed in environmentally controlled growing rooms. When the mycelium has spread through or colonized the substrate, the bottles are moved to an area where a plastic collar is attached to the top of the bottle. This collar guides the forming mushrooms to grow straight up to help control Carbon Dioxide. Enokis require a colder environment, 45 F / 7.2 C compared to 60 F / 15.5 C which is what is required by other varieties. After about 90 days, the mushrooms are harvested. The collars are removed, the Enokis plucked from the mouth of the bottle, and packaged in shrink wrapped bags. The remaining substrate is recycled because Enokis only produce one set of fruiting bodies per crop.