

Colchicum autumnale, commonly known as autumn crocus, meadow saffron or naked lady, is a flowering plant that contains colchicine. Autumn crocus is commonly sold at nurseries and places such as Wal-Mart that carry plants.

Colchicine, having the ability to inhibit chromosome segregation, is used for inducing polyploidy in plant cells during cellular division. Inducing polyploidy with colchicine can make plants better in a variety of ways.

Here is a method of making a solution of colchicine from autumn crocus that can be used for inducing polyploidy in plants.

You will need; autumn crocus bulbs, a grinder, a way to filter the mixture, and a few bottles.

Step 1.

Grind the autumn crocus bulb(s) into a fine powder.

I first chopped the bulbs to make grinding easier. I then used a coffee grinder and it easily powdered the chopped bulbs.



Picture of chopped bulbs.



Picture of the coffee grinder used.



Picture of powdered bulb with non-powdered bulb.

Step 2.

Add about twice the volume of warm water to the powdered plant material and let it soak over night in a cool, dark place. Agitation may help extract more of the wanted alkaloids. Colchicine is fairly unstable, take steps to prevent it from decomposing.



Picture of powdered bulbs in twice their volume of water.

Step 3.

After the powdered bulbs have soaked overnight, filter the mixture. If filtering is to difficult, allow for the particles to fall out and decent and keep the liquid on top.

If you choose filtering, I recommend folding the filter paper over the remaining substance and pressing it with the back of a cup, pressing will get most of the liquid out.



Picture of the mixture being filtered.

Step 4.

Once you are done filtering you should have a yellow-clear liquid that contains colchicine. Store this in an air tight container, in a cool dark place.



Picture of autumn crocus extract, or colchicine solution.

Notes:

Mold starts growing after a few days if kept improperly and may ruin the solution.

The solution is very toxic.

The solution may vary in colchicine concentration since concentrations of colchicine vary from bulb to bulb.

The solution can be used several times when treating plants and seeds.

For more related information please visit The Vespiary.