

Will New Potatoes grow in a milk jug?

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Purpose: The purpose of this research is to see if we can grow potatoes in milk jugs for people who have trouble bending and lifting a pot to harvest potatoes. We also wanted to see if this is a cost-effective solution for people on a lower budget.

Material List:

- Knife
- Scissors
- Washed and Cleaned Recycled milk Jugs
- Miracle Gro Potting Mix
- Seed Potato's
- Pencils
- Produce Scale

Steps

1. Cut milk jugs cut in half, leaving one side attached and poked drainage holes towards the bottom of the milk jug for drainage.
2. Add Miracle-Grow Potting Mix to the milk jug.
3. Plant a sprouted potato and water thoroughly.
4. Put a pencil in the jug so it will line up with the handle to be able to close the lids for a "greenhouse" effect.
5. Close lids until you see growth.

[See the steps!](#)

Timeline and Observations:

- Planted March 9th in Miracle-Gro Potting Mix
- The potatoes sat in front of the main windows at the office till 10:45am on March 16th until the potatoes were placed outside with closed lids and watered again. This is the first direct light they have had since planting. It appears one container is starting the sport and move the dirt out of its way to grow.
- March 17th the potatoes in the clear container started to push up under the dirt and you could see the leaves.
- March 18th the leaves were clearly showing on the potato in the clear container and the red jug had green leaves showing in the back corner.
- March 22nd, we had significant growth in in the red jug and clear jug.
- March 24th the blue jug started to show growth and a lot of green around the jug.
- March 29th all plants have taken off growing and lots more are popping up however I am fearful of the potatoes being root bound and not having enough room to put on potatoes of any size. In the clear jug you can see the extensive root system. The seed potatoes I used had a lot of root starts so maybe a potato with less would have been better or cutting them off and only planting a few starts rather than the whole seed potatoes with 4 small starts around the corners.
- April 5th the potatoes have started getting very tall and their root system very extensive.
- April 6th one milk jug was transplanted into a \$1 flowerpot to give the root more growth while still being affordable and easy for someone to lift. I also

transplanted one of the milk jugs into a laundry basket with a handle wrapped in a trash bag. I hope that the potatoes will push their way to the sides and be easy to open the trash bag and rake the potatoes out. I left one jug alone. I decided to break these up like this because I was afraid, they were going to be come root bound. I also thought if the one jug did produce what will the yield difference be in the jug compared to the other containers and is this still a viable option for the low income and elderly?

- On April 14th, the potatoes started laying over and growing outward rather than upward. I feel like this could be due to a lack of root space in the pots.
- On April 27th, the potato vines have started really spreading out across the floor and are thriving very well inside. When I first started this demo, I had planned to take them outside after the frost. However, they are doing so well I think I will just see if we can keep growing them in doors. This would make it feasible for someone to grow potatoes at various times of the year which would help low-income families.
- May 3rd, I have noticed that there are potatoes that are coming to the surface in the milk jug. I had feared they might be root bound however it has potatoes ready to pick.
- May 10th picked our first potato, it looked normal, tasted normal and was decent size.
- May 18th, I harvested another potato that was half the size of the first one and two that are about the size for the tip of your pinky. I am anxious to see if more will grow in this same pot since these have been harvested. I also obtained more planters for \$1, and I have planted a section of the vines to see if they will root. This project has really spiked my interest for

the conditions of the environment in which they are planted because two weeks after I planted these potatoes inside, I planted some outside in my raised bed and they never came up. I am going to weigh this recent harvest so that I can compare production rates between the milk jug and other planters or potatoes.

- June 7th, I started to notice that my plants were dying and seemed to have a fungus, so I purchased daconil fungicide to spray the plants with. The plants were able to recover till harvest by using this spray.
- June 21st, I decided to harvest the potato's because all the vines had died and were ready for harvest. I plan to weigh each pot to see how many potatoes and how many ounces each pot was able to produce.

Results: I harvested 13 potatoes of varying size out of the milk jug container, and they weighed 4.2 ounces. Plus, the first two harvests we had made on this jug weighed 1.00 ounce, for a total production of 17 potatoes and weight of 5.2 ounces. (Pictured to the right.)



On in the container that I planted the vines in they did not take root and I did not harvest any potatoes.

On the flowerpot container I noticed upon harvest that the potatoes are not as rich a color of red there are swollen lenticels on the potatoes, and it only produced a total of 10 potatoes weight a total of 3.7 ounces. (Pictured below.)



The laundry basket produced 16 potatoes with a total weight of 4.8 ounces. (Pictured below.)



Take Aways

1. Using the recycled milk jug is the most cost effective option of the 4 options I used.
2. The milk jug produced the most potatoes in number and weight and I was able to harvest them in intervals.
3. This is a very affordable growing options for someone looking to grow potatoes with a limited budget.
4. If I was to do this demo again, I would ensure that no other plants were around the potatoes as long as I wanted them to live.
5. I would also pick the potatoes as they are ready and not wait for a final harvest to see how long the plants would live.