

Ginger & Turmeric Production in High Tunnels

2018

Greenhouse & High Tunnel Workshop
Mountain Grove, MO



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About Ginger & Turmeric

- Locally grown, fresh baby ginger and turmeric are becoming more popular with consumers. Consumers are interested in superfoods with high nutritional or health properties plus there is a trend toward locally grown, fresh produce in general.
- Ginger and turmeric are used in cooking for their pungent flavor, scent and color. Fresh rhizomes are sought-after items for smoothies, juicing and Asian cooking and both have been used for centuries in many different types of cuisines.
- There are many studies that point to the number of health benefits. They are used in Asian medicine to relieve inflammation, improve joint health and reduce blood sugar. These properties have been attributed to the high gingerol and curcumin compounds the rhizomes contain.



White Mango Turmeric and Khing Yai Ginger



Marketing Opportunities



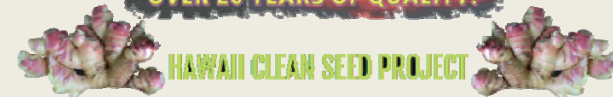
- Market fresh baby ginger with or without the stem attached. Sells at \$9- \$20/# without the stem.
- Turmeric root is also \$9-\$20/#
- Market live ginger and turmeric container plants in the spring to consumers who want to grow and harvest their own product.
- Value added: Dehydrated ginger turmeric tea, ginger habanero jelly, crystallized ginger, ginger lemon honey bombs, ginger chips, ginger syrup, and ground turmeric, and so on!
- Farmers market and local high- end grocers, natural food stores.
- Check with your local health department about rules.

Sourcing disease free rhizomes

- We've had the best experience with rhizomes or seed from Biker Dude Puna Organics in Hawaii. Ordering starts Nov. 1 and they sell out fast!
- Planting rate is about 25-30 lbs per 100 feet, with one seed piece every 4-7"
- A yield of 8:1 is good. 4:1 is poor. We get 12:1!
- Economics excluding bed prep & fertilizer:
 - 30# of rhizomes at \$8.50/# = \$255
 - 8:1 to 12:1 yield = 243# to 360#
 - Market price for fresh baby ginger \$16/#
 - = \$3888 to \$5760 per 100' row
- Test and build your market before you go all in.



Red Turmeric



GENUINE BIKER DUDE GINGER, ACCEPT NO IMITATIONS.

RESEARCH TO PROMOTE CLEAN ORGANIC GINGER AND TURMERIC SEED TO ALL HAWAIIAN HUSBANDS.



The Biker Dude website has lots of helpful growing information.

<http://www.hawaiianorganicginger.com/>

Pre-Sprouting



- We pre-sprout rhizomes in peat or coir on heat mats in mid-March in our zone 6b.
- Keep moist at 70-80°F; night min in high 50's.
- Sprouts in 4-6 weeks.
- It needs a heated space from mid-March to mid-May, while the plants are young.
- Think Hawaii!

Planting & Crop Care

- Get a soil test! The best yields are from very fertile, balanced, well draining soil. Ginger is especially a heavy feeder.
- We trench like for potatoes then add compost and amend per the soil test.
- Plant out when high tunnel soil is 55°F and rising. Transplant at 4" in-row spacing, rows 1' apart. We water in with fish emulsion (5-1-1).
- Feed and hill at least 4 times with 2-3" soil, every 2-4 weeks. We fertigate fish emulsion.
- Install at least 30% shade cloth to eliminate sunburn. Ginger and Turmeric really like the heat but appreciate shade.
- We've experienced no disease but they are suspect to bacterial wilt, fusarium wilt, pythium wilt, nematodes and rhizoctonia.
- Grasshoppers can be a problem.



Harvest and Storage

- 5 months after transplant
- Harvest early to Mid-October before the soil temperature cools to 50-55°F.
- Dig and lift roots carefully.



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Washing & Storage



- For storage, do not wash. Shake off as much soil as possible, cut off tops and roots, store 54-57F, 85-90% humidity.
- For fresh market, spray with water to remove soil. Clip off tops and fleshy roots.
- Colder temps (34-45F) will turn ginger rubbery. This is ok to use for processing but not for the fresh market.



Cleaned & trimmed turmeric

Overwintering Rhizomes

- You can save the highest yielding, good shaped roots for next year's Mother Roots. To overwinter ginger, it must remain planted in soil/media and soil temps should not fall below 54-57°F (12-14°C). Below 50°F the roots will die.
- We have experienced reduced yields when we don't start with certified disease free rhizomes.
- * Ginger and turmeric are quantitative short-day plants for flowering and rhizome swelling. They require long day photoperiod (≥ 12 hours) for continuous growth without entering into dormancy, and gradually reduced day length (≤ 11 hours) for rhizome production. Therefore, as the temperature gets colder and the days are shorter in the fall, leaves turn yellow and plants enter dormancy. At this point, irrigation can be stopped and after three weeks the wilted plant tops can be cut off.
- Overwinter dormant indoors in zone 6b
- * <https://www.greenhousegrower.com/production/how-to-grow-superfoods-ginger-and-turmeric-in-containers/>



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