

From the Garden to the Table: Encouraging Young Children's Healthy Eating

by Julia Luckenbill, with recipes by Cindy Dolan

Have you ever wondered how to get young children to taste vegetables and fruits? One tool we have used in our programs is a kitchen garden. This year the ECL has been exploring the connections between the things we grow and the things we eat.

This focus is timely and appropriate. Our own College of Agriculture and Environmental Sciences (CA&ES), in its publication *Impact*, affirms that it is important to provide children with healthy eating choices because "they are establishing eating habits that will affect their health throughout their lives. A healthy diet also contributes to cognitive devel-



Julia and Gwyn hold a chicken gently.

an adjoining parent-built chicken coop and fenced yard.

opment and academic success." (Townsend & Zidenberg-Cherr, 2007).

Before we began, we considered the kinds of projects that would invite participation from very young children. Then, in the fall, children and teachers planted several vegetable beds and welcomed some chickens to



Faith, Stephanie, Hayden and Eleanor care for our broccoli plant.

The children were invited to help care for the chickens and to assist with planting, watering and pest control for the "farm." As the seasons progressed, we have been able to harvest many exciting foods to taste and use for classroom snacks.

The philosophy behind this farm-to-school project is that children are more likely to try foods that they have planted and grown, especially if adults and peers are trying them, too. (Morris J.L., Neustadter, A., Zidenberg-Cherr, S., 2002.) For example, the toddlers tasted spicy arugula and radishes this fall when we picked them in our garden. These vegetables were interesting, but "too spicy."



Julia, Louis, Eleanor and Nico spray soapy water on aphids.

The children took them home instead and shared them with their families, creating a connection between home and the school "farm." While arugula and radishes were not toddler favorites, every toddler tried and enjoyed the broccoli that we grew, harvested, steamed, and ate for snack.

The toddlers were also interested in exploring the chickens' eggs and cutting up spinach for their homemade frittata. Gwyn's mom, Cindy, facilitated this project. Her recipe follows:

Cindy's Basic Potato Frittata

Ingredients:

4 T olive oil
1 yellow onion
1/4 C water
4 large potatoes
8 eggs
1/3 C milk (cow, plain soy, or rice will work)
2 cloves fresh garlic
1t salt
1t pepper

Optional:
1 C minced broccoli, 2 C finely chopped spinach or collard greens,
1 C shredded carrot

Instructions:

In a large pan, dice the onion, and saute in olive oil on low until it is translucent. Cut the potato in french-fry sized sticks and add to the onion with a 1/4 C water and cover until the potato is soft. Crack eggs in a separate bowl and whisk in the milk, garlic, salt and pepper. Continue to cook it on low with a cover. When you can poke the center with a knife and it is firm, remove it from the stove top, and place under a broiler on low until the top is firm too. To remove it from the pan, slide a spatula slowly around the edges, pour in a Tablespoon of water, cover, and set aside until it cools a little. Slide the spatula carefully under the bottom all the way around, making sure the center is loosened from the pan. Place a plate over it that fits within the circumference of the pan and gently flip it over.

If you are using another hard vegetable, add it with the potato so it gets soft too. If you are adding greens, wait until the potato is soft and then let it wilt over the hot potato just before you add the egg.



Gwyn and Simon are cracking eggs for the frittata

Similarly, the preschoolers harvested and ate the oranges that they grew in their play yard orchard. Children picked the low-hanging fruit and their tallest student caregivers helped harvest from the top branches. They enjoyed homemade Meyer Lemon Lemonade as well. What a treat!



Preschoolers show off the oranges and lemons they picked from their orchard.

To make lemonade: Cut 6 lemons in half and squeeze out juice –approx. 1 cup. Add 1 cup sugar and 6 cups water—adjust to taste.

These activities illustrate another point: we have consistently found that a good way to entice children to try foods is to allow them to assist in preparing the food. For example, when we made fruit salads and smoothies in the toddler and preschool classrooms, everyone tried the results. Research at Columbia University (Contento, 2008) supports this approach.

Yummy Smoothies

Put some frozen seasonal fruit and some fresh fruit such as banana into a blender and put in enough liquid until the fruit is covered. Add cow milk, soy milk or rice milk and a little juice. Add banana chunks if you like.

Blend. Drink.

Smoothie Ideas

Berrilicious – Blend: 1 C *frozen berries* (strawberries, blueberries, or raspberries) with 1C *milk* and 1/2 C 100% *juice* (apple, grape, pomegranate, etc...)

Feeling brave? See if you can get your toddler to throw in two pre-steamed *beet wedges* that have been sitting in the refrigerator from last nights dinner!

Banana – Blend: 1 ripe *banana* with 1–2 C *milk* and 1/4t *vanilla extract*

Feeling brave? See if you can get your toddler to throw in a few teaspoons of milled *flax seed meal* and a T of *honey!*

Awesome Orange – Blend: the flesh of one ripe *mango* with 1 C *orange juice*, and few frozen *pineapple* chunks. Feeling brave? See if you can get your child to throw in a pre-steamed *carrot!*

Gwyn enjoys a smoothie she helped make.

The farm-to-table project is easily replicated at home, even if you don’t have a small farm! As we enter the warm summer months, planting vegetables such as basil, eggplant, tomatoes, green beans and bell peppers in large pots can allow your children to explore plant growth and food production. If you have more space, cucumbers, pumpkins and other squash, melons, potatoes, and tomatillos all grow well in Davis, but need a garden bed because they spread out.

Children love produce that can be eaten right away from the garden. For this reason, cherry tomatoes are particular favorites.

Even if you don't feel brave enough to take on raising your own produce, you can pick it. **Local farms have u-pick produce** and will charge you by the pound for the vegetables and fruit that you pick with your child.

The closest farms are:

Impossible Acres Pickin' Patch: (<http://www.impossibleacres.com>) This farm has many types of stone fruit and berries in the spring and summer, as well as pumpkins in the fall.

Pacific Star Gardens: (<http://www.freewebs.com/pacificstargardens/>) This farm features u-pick strawberries in the months of April and May. They also feature a range of u-pick summer vegetable options such as tomatoes, peppers, basil, eggplant, beans, zucchini and cucumber.



Bea tests out a zucchini that she grew in her garden at home!

A farmers market or roadside produce stand can also be a good farm-fresh food source. When time is tight, encourage your child to pick out something that catches their eye in the produce section of the grocery store. Once you have the produce in hand, preparing it in the kitchen together is a great way to support your child in developing self-help skills. Helping with cooking also makes young children feel very proud.

Cooking projects that work well with **toddlers/twos** include making fruit salad or fruit smoothies, helping stir muffin batter/dumping in fruit, and tearing up salad greens. This is because most toddlers have developed the muscle control to stir, cut, shake, dump, and push buttons through their play with playdough and toys.



Cindy and Lucas doing a cooking project.

Preschoolers are capable of much more involved assistance, as they are able to follow directions, are learning to count and measure, and are developing greater fine motor skill. They can slice and chop softer ingredients with a table knife, fill a measuring cup or spoon, and spread or arrange toppings. They can assist with snacks such as pizza with garden-grown toppings, vegetable soup, and stir-fry. You can use a child-directed cookbook such as *Pretend Soup and Other Real Recipes*, by Mollie Katzen, (available for viewing in our West House lobby) to allow your preschool child to select the recipe and to have some control over the cooking process as well. You will still need to stay close and assist, but your child may surprise you with his or her competence and willingness to try the results of the project.

Keep in mind that children need to try new things *over and over* to develop a taste for them – don't give up if your child is initially resistant. (Contento, 2008) Avoid labeling your child as picky or discussing their eating habits with another adult in front of your child. Offer all kinds of foods in the same way without making some seem more special than others. Begging a child to taste a vegetable implies that the vegetable has something wrong with it. Talking up dessert as a big "treat," or forcing a child to have a few bites of something before getting dessert, implies that it is much better than the vegetables and fruits, and that children should prefer it. Instead, model enthusiasm for the produce as you select and eat it yourself.

Do your best to remain *neutral* to any negative reaction a child has when trying something new. You can set a positive expectation for the future by saying, "I wonder if you might like it the next time you try it." You can also point out healthy eating examples in the community and the media, "*I see that Maria and Luis are eating watermelon. We like to eat that, too!*"

Overall, we have found at the ECL that the children enjoy harvesting, cooking and tasting the fruits and vegetables (and eggs) that we grow. We'd love to hear what you try in your households, too.



Evan and Taye digging in raised beds.

Nutrition Questions? Contact our UC Davis experts:

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Resources on eating, cooking, and gardening with young children:

- ⇒ <http://www.npr.org/2011/02/14/133629227/to-win-toddler-food-battles-take-a-softer-approach>
- ⇒ http://www.nytimes.com/2008/09/15/health/healthspecial2/15eat.html?pagewanted=2&_r=1&ref=health
- ⇒ http://healthymeals.nal.usda.gov/nal_display/index.php?info_center=14&tax_level=2&tax_subject=230&topic_id=1189
- ⇒ http://www.oces.okstate.edu/Members/trisha_gedon-40okstate.edu/cooking-can-be-an-educational-experience-for-children
- ⇒ http://cookingwithkids.net/About_Us/index.html
- ⇒ <http://www.tc.columbia.edu/news/article.htm?id=6665>
- ⇒ <http://www.eatbettermovemore.org/sa/enact/school/schoolgardens.php>

References

- Contento, I., 2008. *Do you want your children to try new foods? Try keeping them in the kitchen.* <http://www.tc.columbia.edu/news/article.htm?id=6665>
- Morris JL, Neustadter A, Zidenberg-Cherr, S *Garden-enhanced nutrition curriculum improves fourth-grade school children's knowledge of nutrition and preferences for some vegetables.* J Am Diet Assoc. 2002 Jan;102(1):91-3
- Townsend & Zidenberg-Cherr, 2007. *Impact.* <http://caes.ucdavis.edu/publications/impact/default.htm>



Gwyn and Beckett harvest eggs in their home garden.

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