Whole School Model

Yellville, AR

ARKANSAS VALUES IN ACTION

Along with fellow members of the Yellville-Summit school wellness committee, school health coordinator Valerie Davenport believed that bringing healthy food to students' plates is essential to their learning and developing as citizens. This conviction led Davenport to apply for the Delta Garden Study through the Arkansas Children's Research Institute. District

administration, staff, and faculty were also eager to start the school garden program as it would help develop students' skills as farmers and support agricultural studies, both important to the local community. In a district where nearly 75% of students are on free and reduced lunch, a school garden's reflection of the local agricultural economy could become a source of pride.

In July of 2012, Katherine Quinn came to start a school garden, working with an

▲ This trio, along with others, is responsible for a lot! From left, Arkansas GardenCorps member Amy Fitzpatrick, ag educator Katherine Quinn, and school health coordinator Valerie Davenport.

AmeriCorps NCCC team to build a high tunnel and 24 raised garden beds. During her first year, Quinn maintained the gardens, integrated them into science classes, and started a garden club. When the

"Growing your own food is empowering the hard work you put into it pays off." *-Katherine Quinn* research year ended, the school

was determined to continue the program: Quinn was offered a full-time position teaching agriscience. During this time, Davenport and Quinn were persistent about growing the campus garden infrastructure. Through grants, the school built a greenhouse to ensure students would receive credit in their plant-based

science class. As their program continued to expand, Yellville-Summit partnered with Arkansas GardenCorps to provide Quinn with garden maintenance assistance and delivery of garden-based nutrition education for students of all grades.

The teamwork of the local and school invaluable. community has been District superintendent Wes Henderson and principal Calvin Mallett wholeheartedly support the program, and teachers have found it easy to incorporate garden lessons because Quinn and Davenport build their programs into existing policy. Teachers and community members purchase produce from the school, and many members of the local community volunteer at the gardens. The local Rotary Club plans to start a school orchard. >>





CLASSROOM TO CAFETERIA

>> What started as a hands-on education opportunity has grown to include supplying produce for school meals. The cafeteria must serve food that meets United States Department of Agriculture (USDA) guidelines. As Guinn and her students were already growing healthy produce on campus, Child Nutrition Director Cindy Weaver was able to use school produce to meet USDA nutrition requirements.

In addition, Davenport and Quinn have partnered to bring "Friday Try Day" to students. On select Fridays, wellness committee volunteers present students with produce from the school gardens. Students are invited to try the food and are asked to

Teaching requires a "whole child approach".

rate it. Veggie quesadillas and braised Brussel sprouts have been great hits!

Davenport and Quinn believe that teaching requires a "whole child approach". Through their farm to school

practices, they believe children are learning skills that could sustain them in future generations: they are learning how to lead healthy lives, directly impacting ability to focus and succeed in school. Yellville-Summit schools have dedicated five years to developing their whole school integration model, paving the way for others to do the same. \ll





▲ High tunnels are a relatively inexpensive way to extend the growing season. Leafy greens, simple to grow and full of nutritional value, can be grown in winter.



 The Whole School, Whole Community, Whole Child model courtesy of the CDC in collaboration with ASCD.
Often a learning experience for teachers as well, classes sign up to adopt small hoop house plots.

Many thanks go to the following at Yellville-Summit: Valerie Davenport, school health coordinator; Amy Fitzpatrick, Arkansas GardenCorps member; Wes Henderson, district superintendent; Calvin Mallett, elementary school principal; Katherine Quinn, plant science ag educator; and Cindy Weaver, Child Nutrition Director.





Growing Minds

North Little Rock, AR

FOOD-BASED CURRICULUM

Farm to school programming exists in a wide variety of formats outside of serving locally grown food in school cafeterias. At Pike View Early Childhood Center, farm to school has taken on a life of its own as an early education teaching tool. The Childhood Center

has successfully integrated food-based nutrition education with garden-based learning. According to Jody Veit-Edrington, coordinator of early childhood education for the North Little Rock School District, "the extension of learning to the garden is very motivating and the kids really get into it." "The extension of learning to the garden is very motivating and the kids really get into it."

Their nutrition programs began with Grow It, Try It, Like It, which encourages children to try six different fruits and vegetables which they

> normally do not have

access to at home. In order to add to the farm to school programming, they looked to the University of Arkansas Medical School's We Inspire Smart Eating (WISE) nutrition education program. Teachers



▲ Garden coordinators periodically plant "surprises" for the young students, such as these spring daffodils. Otherwise, teachers and students choose what to plant.

have the option to participate in training so they can effectively implement the program. Consisting of three main components, WISE includes lesson plans for units focused on eight different fruits and vegetables, recipes, and activities that blend academic subjects such as math and reading with food experiences.

This food-based curriculum also has the added benefit of home carryover. Children are given materials, such as recipes and a note from the farmer who grew their food, which they bring home and share with their guardian to encourage continuation of healthy eating at home. Once the guardians are engaged with the programming, it is more likely that the practices will continue once children leave Pike View and enroll in elementary schools across the city. >>

MORE THAN A GARDEN

>> Pike View has extended their food education in terms of facilities as well, installing several garden beds on their grounds which serve a number of purposes to both the school, and the community. The children are able to use the garden as a tool to help them understand where food comes from and the process of planting a seed in the ground and doing the work required to see that seed grow.



▲ Students at Pike View Early Childhood Education Center look forward to tasting the fruit of their labor. In addition to plant life, students gain experience with school animals, feeding a pair of rabbits, a bearded dragon, a spotted gecko, and three turtles.



The children also use the garden as part of their curriculum. The gardens provide children with lessons in science, opportunities to draw what they grow, and even a chance at creating their own maps. Veit-Edrington shared an example of the children of one classroom using the garden to work on their problem

solving. The students were tasked with figuring out how to bring water from the classroom to the garden using the

"Children do not have contact with the earth that I had as a child." *-Jody Veit-Edrington*

quickest route. The children had to figure out how much water they could carry at one time, which hallways they should take and how many steps and doors they would have to navigate. In this way, the garden becomes the classroom, nurturing exploration and problem-solving.

The key to the school's success in implementing their food-based education was starting small and making sure that they had buy-in from the staff. The original garden plots for each teacher started as 2'x2' and have since expanded to 2'x4' as teachers asked for more space for their classes. Now there are 17 4'x8' beds. Veit-Edrington reports the last thing they would like to incorporate is an expansion of the farm to school programming in North Little Rock to bring local produce directly into the cafeteria. \ll

Many thanks to **Jody Veit-Edrington**, coordinator of early childhood education for North Little Rock School District.





Step-by-Step Approach

Fayetteville, AR

STARTING SMALL

More than a decade ago, Fayetteville Public Schools began its farm to school journey. Serving 10,000 students, the district has used a small-step approach the entire way, always focusing on what could be done in the present. At the very beginning, this took the form of a few school gardens and a Child Nutrition Director (CND) reaching out to farmers at a local

farmers' market. Having grown up on a farm herself, district CND Ally Mrachek advises, "People should start grassroots small. It doesn't have to be big and fancy; start small so that there can be successes immediately."

In 2005, the district tried using some local produce at three elementary schools for just the first and last eight weeks of the school year. The next year,



 ▲ Green tongs signify local produce on the serving line.
▶ Fayetteville High School child nutrition staff prepare butternut squash grown by Dickey Farms in Tontitown.
Another staple, 1,000 pounds of sweet potatoes are ordered every other month (pictured above right).

they continued, and tried just a few easy products district-wide: fresh apples, peaches, and watermelons. In the spring of 2007, they coordinated with the local farmers' market: a school delivery truck

"Start small so

that there can

be successes

immediately."

picked up produce on

Tuesday mornings

and delivered to schools for serving on Wednesdays. "Small is okay," says Mrachek: "Keep the long game in mind."

Starting at a small scale allows schools and districts to make changes before scaling up. >>





▲ An Arkansas FoodCorps member provides lemon roasted broccoli as part of a Harvest of the Month taste test. The recipe was created by the previous year's service member.

Parents are periodically invited to join their students for Local Harvest Lunches. Faculty and staff are also encouraged to attend.



GAINING MOMENTUM

>> Partnerships have also fed into the step-bystep approach. Over the next few years, local nonprofit AppleSeeds helped provide hands-on educational experiences and farm field trips starting at Leverett Elementary, while Feed Fayetteville helped with educational farm to school lunches starting with elementary schools. In 2012, Fayetteville was finally ready for, applied, and received a grant from the

"You can serve people great food *and* support the local economy."

Southern Sustainable Agriculture Research and Education (SARE) group. Over the next years, the district hosted FoodCorps members who helped build capacity, and

dietetic students from the University of Arkansas who ran taste tests of local seasonal fruits and vegetables. Mrachek affirms, "people are the biggest resource."

All this work over the last decade built into momentum that resulted in the district receiving a United States Department of Agriculture (USDA) \$100,000 grant. In the months and years that followed, this grant provided significant seed money that helped Fayetteville continue to build sustainably upon its farm to school foundation.

The step-by-step approach applied in Fayetteville can work anywhere. Further, the values of community and self-sufficiency that Mrachek identifies in her district hold true in communities across the state. "Use strengths of the community you are in. You can focus on gardening in one community, and procurement in another. The beauty of farm to school is it can look completely different," says Mrachek. "It can be a really great two-for-one. You can serve people great food *and* support the local economy." «



Ine Fayetteville Seed to Student education prograi implemented many small steps over the last decade.

Many thanks to Ally Mrachek, CND for Fayetteville Public Schools.





Providing Protein

Danville, AR

FROM PASTURE TO PLATE

When most people hear farm to school, they generally think about fresh produce. In the small town of Danville, farm to school looks a little different. Agricultural education teacher and Future Farmers of America (FFA) coordinator Gary Gray and food service director Marcia Tramel struck up a conversation during an in-service day—their school was set up to raise FFA beef, not vegetables. Could FFA cattle raised on school grounds become a source of protein in school meals?

Tramel's plan was to buy the beef using micropurchasing, a USDA-sanctioned procurement method which allows CNDs to make smaller purchases under a certain threshold. In order for the school to serve the



▲ Beef cattle graze on pasture. Whereas USDA prime grade meat is fattened for quality steaks, beef for school consumption must be no more than 20% fat.

grass-fed locallygrown beef in the cafeteria, Gray had to meet a series of United States Department of Agriculture (USDA) The regulations. meat had to be processed at а



facility with a full-time USDA inspector present and contain no more than 20% fat. Once the meat had been processed, inspected, and approved, it was delivered to the school. Cafeteria staff pressed 772 pounds of ground beef into 3,000 four-ounce patties. Once a week for five weeks, the aroma of homegrown, homemade, scratch-seasoned burgers filled the cafeteria.

The mascot-inspired "Little John" burgers were a hit, enticing students to stay and eat a meal made in

the cafeteria, despite having the option to leave campus. Each subsequent week in which the local burgers were served, increasing numbers of students stayed on campus. >>

The school was able to turn the 772 pounds of meat into 3,000 four-ounce patties complete with homemade lowsodium seasoning.

A LEARNING EXPERIENCE

>> Gray intended to provide a second calf for the cafeteria, but its fat content exceeded the 20% ratio requirement. The second calf provided an important learning opportunity for Gray and the FFA students. Various breeds of cattle, along with

particular raising practices, are better suited for meeting USDA school meal regulations. As calves for school consumption must be leaner, they are typically "grass-finished", that is, they graze on pasture until they have reached the appropriate weight of roughly 1200-1300 pounds. For this reason, Gray recommends raising



and is planning for a year-round supply of locallysourced, grass-finished beef by providing 9-10 calves

that this model can be adopted by any independent

This model can be adopted by any independent beef producer with an understanding of USDA guidelines. per year to the school cafeteria. Instrumental to Danville's success is the cooperation of the FFA chapter which purchases cows and semen, and trains students to do all the work involved in raising the calves; and the school, which owns the farm, pays the FFA chapter for the processed meat, and provides agriculture curriculum. Gray also notes

steers as they tend to put on less fat than heifers.

The school has learned from the experience



▲ Cafeteria staff press the school-raised beef by hand. Later, a new cattle processor in Pottsville provided its own press, which lightened their workload.

Many thanks go to the following at Danville: Gary Gray, FFA advisor and ag teacher; Janet Minnie, food service manager; and Marcia Tramel, food service director. Key Steps for Farmers

• Approach: Break the mindset that a finished calf is a fat calf.

beef producer. 🗞

- Agree: Draw up a contract with the school; confirm that the school will buy the meat at USDA market price on the day the calf is processed as long as requirements are met.
- Lean Meat: Ensure the calf will be less than 20% fat; this requires a higher grass diet. Be wary of intramuscular fat.
- **Processing:** Confirm who is butchering the meat and how.
- **Back-Up Plan:** Have a secondary buyer in place for meat; if it exceeds 20% fat content, school cannot purchase.

Key Steps for School Cafeterias

- **Purchasing Language:** Micro-purchasing means you don't have to go through the bid process.
- **Price:** Use the USDA website market reports to arrive at a price for the day the calf is processed.
- **Transport:** Ensure you have a refrigerated vehicle to transport the meat from the processing plant to school.
- **Equipment:** Make sure you have enough storage for the amount of beef, and know whether or not you'll need patty presses.
- Nutrition: Beef must be less than 20% fat and low-sodium.
- Marketing: Advertise that the product was raised by students!





ARKANSAS FarmtoSchool Groundbreakers

Featured Farmers of AR

Newport and Damascus, AR

NEWPORT

Three years ago, Jim Goodson, Bill Landreth, and school nutrition directors from north and central Arkansas met on Landreth's berry farm for a field day to generate interest in partnerships between their farms and local schools. The group toured the farm, discussed harvesting and handling practices, and negotiated the details on price requirements from the perspectives of their different roles. The school nutrition directors then sent a two-month menu to the

farmers, helping them determine what was feasible to provide to the cafeteria. Fast forward three years, and both farmers are delivering fresh, flavorful fruits and vegetables to schools.

Bill Landreth is located in Newport, Arkansas, and is known by name for his delicious strawberries. He credits Ron Rainey, an agricultural economist with the

University of Arkansas Cooperative Extension Services, for helping him learn about farm to school. Delivering

"Between Jim and myself, we have decided to try not to go up on the school price. It is really an insurance policy for us, a give and take on both parts." -Bill Landreth

that it was not feasible

for him to deliver to

each school. Instead,

he participates in the

regional Northeast

Buying Cooperative.

Through this inventive

produce to over twenty schools, Landreth found cooperative, Landreth delivers to three rotating drop-off

> points, where schools can then pick up their produce for the cafeterias.

> While only 5% of Landreth's produce is delivered to schools. he considers selling to schools an insurance policy and a strong economic choice. Prior to his partnership with schools, he offloaded leftover produce for no profit when he could not locate a market. He also finds that schools



▲ Bill Landreth's strawberry field in Newport, Arkansas. Landreth (pictured top right) encourages farmers to follow food safety procedures when selling to schools.

are a consistent and reliable market and has expanded to providing produce for school fundraisers. Now, students enjoy his field-ripened berries, and he has increased his revenue.

Landreth takes pride in the food he grows: the berries he sells to local schools are the same berries his grandchildren enjoy. As such, he emphasizes the importance of food safety when discussing the farm to school market with other farmers. >>

Though schools do not require GAP certification or a third-party audit on produce, many schools appreciate an on-farm food safety plan and traceability components. For information, visit www.ams.usda.gov/services/auditing/gap-ghp.

DAMASCUS

>> Jim Goodson is located in Damascus, Arkansas, and currently delivers produce to Batesville, Rose Bud, and Dardanelle school districts. He focuses on raising off-season crops that benefit from being delivered directly from the farm; half of what he grows is delivered to schools. Goodson notes local produce has a more pleasing appearance from less handling, and higher quality taste due to less storage and travel time. This is evident through his delivery of 400 pounds of tomatoes every week to one school district alone. To preserve the field-fresh flavor of the tomatoes, schools are asked not to refrigerate them, and students notice the difference—they eat more tomatoes when they're locally grown.

Goodson has found that strawberries, tomatoes, and lettuce are all products that are valuable for farmers to sell to schools, due to the volume school cafeterias require, as well as the quality margin. Goodson prefers to drive his produce directly from his farm to each school because he is passionate about delivering his produce in person.



▲ Jim Goodson's hydroponic set-up. Greens are regularly in demand at schools, and provide important nutrients year-round. That being said, any farmer can adapt some part of their process to the school market.



▲ Jim Goodson's farm produces about 10,000 pounds of tomatoes every year. He has discovered that certain crops lend themselves to the farm to school market.

In fact, Goodson knocked on school doors to

meet cafeteria managers and Child Nutrition Directors faceto-face. As he says, he carved out the demand for the produce he was growing. Ultimately, the schools and the

"The schools have got to create the demand. Right now, I went out and found my own demand. Bill went out and found his own demand."

-Jim Goodson

farmers have to meet in the middle.

To the students of Batesville, Rose Bud, and Dardanelle, Goodson is not only a farmer, but a teacher. He has participated in ten education programs to teach students about where their food comes from. One of his most memorable lessons consisted of helping students identify seeds of different fruits and vegetables, bringing the growing process into the classroom. Goodson wants future generations to understand agriculture and become excited about fresh, homegrown food. \ll

Many thanks to: Jim Goodson, Damascus farmer; Bill Landreth, Newport farmer; and Ron Rainey, University of Arkansas Cooperative Extension Service.





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Northeast Buying Co-op

Northeast AR

FROM 4 NUTRITION DIRECTORS TO 28 SCHOOL DISTRICTS

Ten years ago, four Child Nutrition Directors came together to create the Northeast Buying

Cooperative. Today, the tightly-knit, fourdistrict cooperative in northeastern Arkansas has grown to include 28 school districts feeding 34,000 children. Their story is one of starting small, and growing steadily over time.

Those initial four Child Nutrition Directors (CNDs) reached out to other CNDs they knew in neighboring districts. The intent was to grow the cooperative, and see if joining forces would give surrounding districts more purchasing

power. Despite some early hesitancy, the cooperative grew as CNDs saw what it could accomplish for their students, and in some cases, their bottom line.



▲ One key component of the buying cooperative's success is the central drop point, which increases efficiency for both farmers and schools.

As the cooperative grew, so did interest in buying locally. This journey began with a farm tour at Berries by Bill in Newport, AR,

"We decided we were going to pool our resources together to purchase higher quality products at a better price for our kids." where the four CNDs met farmer Bill Landreth, who

grows strawberries, sweet corn, watermelon, and cantaloupe. Bill walked them through the fields, and his harvesting process. Inspired, the group discussed Good Agricultural Practices [GAP] food safety certification, pricing,

and how each party's needs might be accommodated. Dolores Sutterfield, a founding member of the cooperative and CND for Harrisburg School District says of those early days, "we decided we were going to pool our resources together to purchase higher quality products at a better price for our kids."

One key component of the buying cooperative's success is the central drop point. Each district orders directly from the farm, but delivery is made to one central location. From there, individual districts are responsible for getting the produce to their schools. Sometimes, this is a coordinated effort, with districts taking turns picking up and distributing within their region. Using drop points increases efficiency for the farmer and allows the schools to pool their purchases of locally-grown products. In turn, this results in an affordable cost for all. >>

CONTINUING THE COOPERATIVE

>> One might think local produce straight from the field is more work than what comes from major distributors, but the kitchen managers emphasize that once they figured out a technique-in the case of the lettuce, a salad spinner—any extra time it took was well worth the quality of the produce. Additionally, they make efforts to tell their students where the food came

from, and because the produce is of a higher quality, the young learners eat more of it. A hat good is commercial produce if it stays on the plate? As Sutterfield put it, "if anyone tries any of the local produce, I don't think they'll go back."

X hen dealing with local produce, the weather has a stronger effect. Ongoing communication is essential, and as Sutterfield says, "for something that local, you have to be able to give and take." She finds it easy to supplement with their

mainstream distributor, but gives preference to local food first in order to fulfill United States Department of Agriculture (USDA) produce requirements. The

group

"If anyone tries any of the local produce, I don't think they'll go back."



they could always use more farmers!

Currently, the cooperative meets about every two to three months, and is looking into local protein options. The CNDs highlight that their relationship is not

just about purchasing, rather, its highest function is the camaraderie they experience from sharing new ideas, problem-solving together, and networking. Sutterfield proclaims, "our group is remarkable: how we network and help each other." 🔨

Key Steps to Start a Cooperative

- Network: Contact CNDs/farmers in your area and see if a buying cooperative could work in your community. Reach out at markets: call the district.
- Start Small: Begin with one farmer, school, and item.
- Know the Details: Know the number and quantity of product desired and available. Keep in mind guantities are different than with a mainline distributor.
- Attend Trainings: Farm to school conferences provide information and build relationships! Locate events and other resources by visiting the Arkansas Farm to School webpage at www.arkansasfarmtoschool.org.

M any thanks go to: Sheila Gresham, elementary school kitchen manager for Harrisburg School District; Bill Landreth, owner and operator of Berries by Bill in Newport; Dawn Ragsdale, food services department director for Nettleton School District, chair of Northeast Buying Cooperative; Susan Smith, high school kitchen manager for Harrisburg School District; and Dolores Sutterfield, Child Nutrition Director for Harrisburg School District.







▲ The purchase of a salad spinner made it easier for kitchen managers to wash fresh mixed leaf lettuce.