

Nature-Study and Gardening*

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Nature-study and gardening have been in partnership ever since Adam and Eve had their early experiences in Horticulture. The interests of the two studies seem sometimes to have been diverse and yet they should be unified.

There are two groups of garden teachers: graduates of the agricultural school or the economists and the naturalist who is an idealist and a pedagogue. We need leaders who can combine all these qualities. The leader must have a vision. He cannot be like the old colored preacher who upon being reproved for irregularity in conduct said: "Well brother, I believe in the division of labor. I preach and you practice." In the words of Emerson:

"All are needed by each one;
Nothing is fair or good alone.
I thought the sparrow's note from heaven,
Singing at dawn on the alder bough;
I brought him home in his nest at even;
He sings the song, but it cheers not now,
For I did not bring home the river or sky:—
He sang to my ear,—they sang to my eye."

It is vitally important that the garden leader be prepared. Physiography automatically dropped from the course of study because there were no teachers who could teach it. General Science is struggling with the same "bugbear." Both are worthy subjects. Our hope is in the agricultural colleges and the colleges of education. We have a unique plan in Rhode Island. One may go two and one-half years to the college of education and then with two years in the college of agriculture obtain two degrees or he may reverse the order of attendance. This plan of cooperation is worth adopting in other states.

It seems almost unnecessary to say that the garden leader must know gardening. He must have a technical knowledge of soils and fertilizers; of blights, insects and remedies; of harvesting and storage. He must know and love nature's ways and forces. He must have high ideals for in the garden he is not only a teacher but a companion with an intimacy that is different from that in the

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classroom. He has an unusual opportunity of radiating good morals which should surely prove a potent factor in the pupil's future. I think of the garden as a *pedagogical garden*. There is no education one can get from books that is equal to that which can be gotten from "elbow contact" with a fine leader. Instead of studying books so constantly and facing the teacher how I wish that our pupils might learn to study things *with* leaders—both facing the same way. We don't need gardens. We need leaders and when we have leaders we will have gardens.

The teachers of gardening have perhaps given too much time to teaching garden facts. They have dealt too exclusively with measurements, as for instance: how far apart, how deep, how long, how wide, how much. Such bald figures do not satisfy us. We are now coming over to the view that behind every "how far apart" there is a reason. Why plant beans four inches apart and squashes eight feet apart? It is only through discovering the reason for doing certain things in the garden that the child understands the causes that lie behind the greater activities of the world.

And lest there should be any misunderstanding I wish to mention another source of danger in this enterprise. That is of too much gushing or effervescence by the teacher. That method was tried out a generation ago and it justly failed. Some educators are rightly wary of nature-study as being sentimentalism but nature-study is now coming to its own in the summer camps. I have many occasions of placing nature guides or councilors in these camps. A most pitiful sight in this connection is to see older teachers—they occasionally appear in extension courses—who suddenly feel that they are called to teach nature lore in a summer camp. Their awakening interest is amazing—their mistakes are ridiculous—and their effusiveness is offensive. They remind one of the typical preacher described by Booker T. Washington in "Up from Slavery." He quotes a colored man in Alabama who said: "O Lawd, de cotton am so grassy, de work am so hard, and the sun am so hot dat I b'lieve dis darkey am called to preach!" And these poor teachers are calling out,—“O Lord, the curriculum is so dry, the work is so wearing, and my pocket book so meagre that I believe that I am just the one to lead children into the fields and gardens.”

As has been intimated the most important side of gardening has little to do with the plant crop. We put the garden work on a

utility basis during the war and in most cases did not change with the changing conditions. It is no longer a radish garden at five cents a bunch. In this garden the child is to have experiences. Right here is where gardening is helped by nature-study. What the child gets out of his garden depends on his richness in experiences rather than richness in gold and yet many of us bait and justify our gardens with gold i. e. if one is to judge by the financial report that seems to enter into every school garden article. The educative value of a garden can never be tabulated. The child's garden (Kindergarten) is a place where we cultivate their normal aptitude for exercise, play, social intercourse, nurture, and scientific observation as opposed to fictitious enterprises and artificiality.

There are many ways in which we may vitalize the garden. I will mention a few that occur to me at this time.

1. I would have a *garden museum*, even though it be built on the unit system with discarded orange crates. In this museum I would have freshly picked weeds in glasses of water with proper labels; samples of soils; insect cages to show their development; an observation bee hive; life history exhibits of various crops; a bulletin board for news notes; fruit jar aquarias; pets such as toads or rabbits; pictures of neighboring birds; bird boxes; cloud charts; minerals of the garden; riker mounts to show insects; experiments carried on by the children to show the use of sunshine or to answer such questions as, "Why do we use a mulch?". It would be a children's museum for the children and by the children. And I am quite sure that it would be a living museum for living children in a living background.

2. I would have *garden excursions*. Not long ago I had a class on such a trip. We stood admiring a bungalow and its surroundings; its beautiful hedge with a bank of ferns in front; its red cedar fence with the branches cut about a foot from the trunk; its well groomed orchard. The owner saw our interest and invited us to come in. He showed us a porch chair made from one piece of wood cut on the place. He told about the sundial which was of Queen Elizabeth's time; how the lantern beneath the grape arbored entrance used to swing at the mast head of a Long Island steamer; how the fire tongs had been passed down for generations as a family heirloom; how the fire place was made of stones that he had gathered one at a time from all parts of the world. He showed

us one in particular that his son had sent from France. He told us about the burlap on his wall that was made of a rare fibre from Manila and after exciting the admiration of his visitors explained that it was peanut bags. We viewed his thrifty strawberry bed and he cut peonies for us to take home. We saw a novel dog-house made in the form of a rockery with ferns and mosses growing on the roof. And he said that the dog never used the house. And then we were shown the grave of Sir William and after everyone had guessed (Wrongly of course) he said that Sir William was a burro. (He died because he ate too many green apples). And he showed a picture of Sir William with three children on his back and called the picture "Free happiness of childhood." This typifies my idea of gardening and nature-study. Take the strawberries and peonies out of this setting and they lose in value. In this garden children surely have healthy play and joy in exercise.

3. I would have *garden songs*. Long rows are often forgotten when folks swing into rhythm and work along together. These songs would not be at a given time by a given chorus. They would arise spontaneously as plantation melodies and stevedore songs. The songs would have as much immediate bearing as possible. I would aim for original words and latter original music. Today it might be Hoe! Hoe! Hoe your row! and tomorrow Plant! Plant! Plant your corn!

4. I would have *garden stories*, and they would be true stories, a large per cent of which would be about discoveries made right in the garden. They would be about the leaf cutting bee and the origin of soil, how the toad helps the garden, how the Pilgrims learned gardening from the Indians, and why the potato blossom does not form fruit. They would come at a rest period at the end of a row, possibly under the shade of an elm tree or around an outdoor fire place which I would have near the garden. And sometimes I would have them cook their supper or dinner at this fire place and have after dinner stories by the glow of the fire. And thus I would build pleasant memories around the garden.

5. I would have *garden plays*. They would be informal. There would be pantomimes. The just-among-yourselves kind. There would be stunts and picturesque ideas. I would have original plays and have them instructive. Someone weeding might say when finding certain grasses: "I wish that there would never be

any more grass." A fairy appears and says that he may have his wish. The corn in the garden vanishes. He didn't know that corn is an important member of the grass family. He couldn't take any sweet corn home for his dinner. When he stopped at the bakery to get a loaf of bread, that his mother had asked him to be sure and not forget, he was met with a stern "NO!" There is no more wheat to make flour. He noticed that it was very hot. The lawns had disappeared and the sun beat right down onto the bare ground. And then the rain came and as he could not work in his garden he decided to go swimming. And when he got to the swimming hole he found that it was filled with sand and mud from Mrs. Smith's front yard. And Mrs. Smith was looking out of her back window sort of discouraged like. Of course she didn't know why her garden had been flooded and the lettuce covered with gravel. And then our little gardener began to wish again. And he wished very, very hard. And the fairy came again. But before she gave him her wish she told him that he must think before he made any such remarks. And then the grasses all came back as they were before and he was happy that it was so.

6. I would have *garden notebooks*, for those who wanted them but they would not be required. I would have the children write their songs and plays in these books. I would give diary sheets to those who wished them. And I would have account sheets, and pages for photographs, and direction sheets for planting, and keys for identifying weeds and another for insects, I would encourage drawing and story writing. And it would be the child's personal possession. The scripture says, "Of making many books there is no end." Yet if there be too many, we trust that each book of the child is not of the number that may well be spared. For a child's production is a record and a reminder of his flights of interest. By their works we shall know them. And we also add that by their works we shall know their leaders.