SALT (Sloping Agricultural Land Technology) with Emphasis on Forage & Animal Production

ECHO Inc.

This method is designed to allow crops to be grown even on steep hillsides with minimal erosion while at the same timeincreasing soil fertility and providing fodder for livestock. Rather than controlling erosion with rock terraces or ditches, SALT relies on rows of vegetation. Trees and shrubs with the ability to grow very closely together and to resprout when cut back are planted only inches/centimeters apart on the contour of the land. They are never allowed to grow too tall. Pruned branches are either left in the field as mulch or fed to animals, with manure returned to the field. After a heavy rain, the water is slowed down as it passes through the barrier. Many of the soil particles carried by runoff water are dropped, resulting in a gradual buildup of a somewhat flattened area on the uphill side.

ECHO farm manager Danny Blank says, “I had heard for years about the SALT method, developed by Harold Watson at the Mindanao Baptist Rural Life Center in the Philippines. In 2001, we implemented it on ECHO’s own demonstration farm. I liked the success we experienced with legume tree hedgerows, especially when prioritizing the use of prunings as animal feed rather than mulch for crops. But it was not until I visited Rancho Ebenezer in Nicaragua in 2004 and 2007 and saw SALT being used on a large scale that I became convinced that this is one of the better methods for sustaining and improving agriculture production on hillsides, especially where rainfall is usually adequate for the crops being grown between the hedgerows. ECHO offers a TN on the subject and covered it briefly in AZ 139, but one can also find an excellent review in the FAO document Forage Tree Legumes in Tropical Agriculture, highlighting how the soil conserving benefits were realized as economic gains to Filipino farmers. Find publications about SALT at www2.mozcom.com/~mbrlc/publications.htm.

The figure at the left shows an abandoned hillside at Rancho Ebenezer in Nicaragua, before the introduction of the SALT technique. The figure on the right shows the same hillside, about three years later. Photos used with permission from Mark Hare.

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