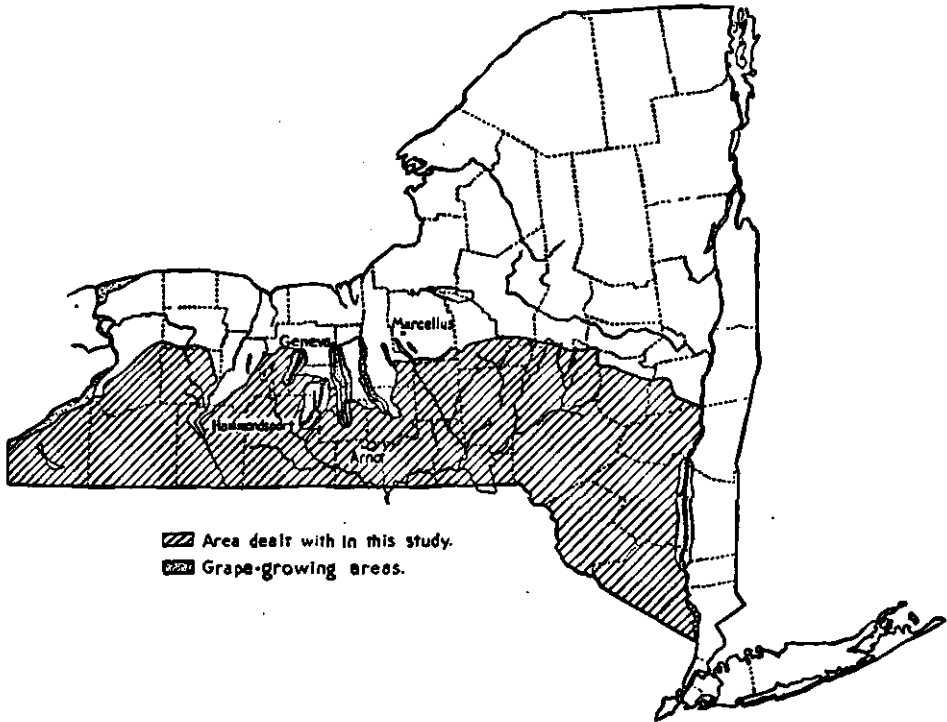


Experiments in the Control of Soil Erosion in Southern New York

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SUMMARY AND RECOMMENDATIONS

1. Much of the rainfall from June through September comes as heavy showers or high-intensity rains. Bare land washes badly and needs protection (p. 14).
2. Erosion is likely to be severe on long, steep slopes.
 - a. Plow long slopes in strips across the slopes, and not all at once (p. 26).
 - b. Keep the soil-exposing crops on the gentler slopes (p. 18).
3. Stones protect the soil from erosion. Remove only the large, troublesome stones (p. 19).
4. Grasses, legumes, and small grains protect the soil. Seed these crops on the more erodible cropped slopes (p. 20).
5. Buckwheat and continuous corn permitted considerable loss of soil during June, July, and August, but land in meadow, oats, corn in rotation, and contour potatoes lost little soil. Erosive crops should be grown on the soils less subject to erosion (p. 20).
6. Leaving buckwheat stubble and straw on the surface reduced loss of water and soil; trashy cultivation should be practiced wherever feasible (p. 22).
7. Fertilization and rotation increase yields and reduce losses of water and soil. Therefore, maintain high productivity of the soil (p. 22).
8. Contour-planted potatoes lost less water and soil, and (average 1935, 1938, 1940-43) produced 15 bushels an acre more tubers than did those planted up- and downhill; corn 5 bushels more. Plant all crops on the contour, or as near it as feasible (p. 23).
9. Contour-strip-cropped land loses less water and soil than do long slopes in soil-exposing crops even if they are seeded on the contour (table 11). Divide long slopes into narrow strips (about 75 feet on a 15-per-cent slope) and alternate soil-protecting (meadow) with soil-exposing crops (corn or potatoes) (p. 26).
10. Well managed and fertilized, thrifty pastures retain water and protect the soil. Seed, fertilize, and lime, so as to maintain a high-producing, thick, soil-protecting sward (p. 27).
11. Past erosion has reduced the thickness of surface soil, and potato yields are correspondingly reduced. Soil washed away cannot usually be returned; hence rapid loss should be prevented lest yields be further reduced (p. 28).
12. Pastured woodlots have few seedlings growing to replace old trees. Fencing livestock out of the woodlots is imperative (p. 29).
13. Erosion on steeply sloping vineyard lands has been severe. Further rapid erosion must be checked if productivity is to be maintained.
14. Contour-planted grapes lost less water and soil and, in general, produced more fruit than did those planted up- and downhill. Plant new vineyards on the contour (p. 31).
15. Cover crops help to hold soil and water, but they compete with the grapes for moisture. Recommendations must be deferred until more information is obtained as to effects on yields and quality of the fruit (p. 31).
16. A mulch of straw or spoiled or wet-land hay aids materially in obtaining a stand and in promoting growth of new vines on badly eroded old vineyard lands. The mulching of producing vines increased yields at first. More information is needed concerning long-term effects on yield, quality of fruit, and winter injury caused by late fall growth.