

## **Appendix H – Soil Data**

The general soil map units in this survey have been grouped into general kinds of landscape for broad interpretive purposes. Each of the broad groups and the map units in each group are described in the following pages.

## **Map Unit Descriptions**

### **Areas Dominated by Very Deep Soils That Do Not Have a Fragipan and That Formed in Glacial Till**

These soils make up about 10 percent of the county. They are on valley plains and uplands. They are dominantly very deep, well drained to somewhat poorly drained, and nearly level to very steep.

#### **1. Valois-Chautauqua-Busti**

*Dominantly gently sloping to strongly sloping, very deep, well drained to somewhat poorly drained, medium textured soils; on uplands*

This map unit consists of soils that formed in loamy glacial till derived mainly from siltstone, sandstone, and some shale. The landscape consists dominantly of broad, rolling areas on valley plains and on some dissected side slopes on the upland plateau in the western part of the county. These areas are associated with glacial terminal and lateral moraines. Slopes are dominantly 3 to 15 percent but range from 0-50 percent. This unit makes up about 5 percent of the county.

#### **2. Fremont-Schuyler**

*Dominantly gently sloping to strongly sloping, very deep, somewhat poorly drained and moderately well drained, medium textured to moderately fine textured soils that has a low content of lime; on uplands*

This map unit consists of soils that formed in acid glacial till derived mainly from shale, siltstone, and some sandstone. The landscape is dominantly broad summits and saddles and dissected side slopes on plateaus. The unit is mainly in the north central and northwestern part of the county. Slopes are dominantly 3 to 15 percent but range from 0 to 50 percent. This unit makes up 2 percent of the county.

#### **3. Salamanca-Almond**

*Dominantly gently sloping to strongly sloping, very deep, somewhat poorly drained and moderately well drained, medium textured to moderately fine textured soils that have a low content of lime; on uplands above elevations of 1800 feet*

This map unit consists of soils that formed in acid glacial till derived mainly from shale, siltstone, and some sandstone. The landscape is dominantly broad summits and saddles and dissected side slopes on plateaus at elevations above 1800 feet. The unit is mainly in the central part of the county. Slopes are dominantly 3 to 15 percent but range from 0 to 35 percent. This unit makes up 3 percent of the county.

## **Areas dominated by Very Deep Soils That Have a Fragipan and That Formed in Glacial Till**

These soils make up 45 percent of the county. They are on upland and valley sides. They are dominantly very deep, somewhat poorly drained to moderately well drained, and nearly level to moderately steep.

### **4. Erie-Langford**

*Dominantly gently sloping to strongly sloping, very deep, somewhat poorly drained and moderately well drained, medium textured soils that have a fragipan and a medium content of lime; on uplands*

This map unit consists of soils that formed in loamy glacial till derived from siltstone, sandstone, shale and some limestone. The landscape dominantly consists of broad, divided hilltops and hillsides on the upland plateau in the northern part of the county. Some areas have distinct drumlins. Slopes are dominantly 3 to 15 percent but range from 0 to 25 percent. This unit makes up about 5 percent of the county.

### **5. Volusia-Mardin**

*Dominantly gently sloping to strongly sloping, very deep, somewhat poorly drained, and moderately well drained, medium textured soils that have a fragipan and a low content of lime; on uplands*

This map unit consists of soils that formed in loamy glacial till derived from siltstone, sandstone, and shale. The landscape dominantly consists of broad till plain divides and the lower side slopes of the upland plateau that is dominantly in the northern and northwestern part of the county. Slopes are dominantly 3 to 15 percent but range from 0 to 25 percent. This unit makes up about 24 percent of the county.

### **6. Ischua-Yorkshire-Napoli**

*Dominantly gently sloping to steep, moderately deep and very deep, moderately well drained and somewhat poorly drained, medium textured soils that have a fragipan and a low content of lime; on uplands above elevations of 1800 feet*

This map unit consists of soils that formed in loamy glacial till derived from siltstone, sandstone, and shale. The landscape is dominantly broad summits and saddles and dissected side slopes on plateaus at elevations above 1800 feet. The unit is dominantly in the central and eastern part of the county. Slopes are dominantly 3 to 35 percent but range from 0 to 50 percent. This unit makes up about 16 percent of the county.

## **Areas dominated by Moderately Deep Soils and Very Deep Soils That Have a Fragipan and That Formed in Glacial Till**

These soils make up 17 percent of the county. They are on upland and valley sides. They are dominantly moderately deep and very deep, moderately well drained and somewhat poorly drained, and nearly level to very steep.

## **7--Hornell-Orpark**

*Dominantly gently sloping to strongly sloping, moderately deep, somewhat poorly drained, moderately fine textured soils that have a low content of lime; on uplands*

This map unit consists of soils that formed in acid glacial till derived from siltstone and shale. These soils are on crests and side slopes on uplands and along escarpments in the northwestern part of the county. This unit is of minor extent but is needed to match with Chautauqua County. Slopes are dominantly 3 to 15 percent but range from 0 to 25 percent. This unit makes up about 1 percent of the county.

## **Areas Dominated by Very Deep Soils Formed in Glacial Lake Sediments**

These soils make up about 6 percent of the county. They formed in clayey, silty, and sandy lake-laid deposits that generally have no rock fragments. They are mainly in the plains and valleys that dissect the upland plateau in the northern part of the county and in the major valleys in the western part of the county. In most areas the soils are nearly level and gently sloping and are somewhat poorly drained to very poorly drained.

## **8--Rhinebeck-Hudson-Niagara**

*Dominantly gently sloping to moderately steep, very deep, somewhat poorly drained to moderately well drained, fine to medium textured soils that have a medium content of lime; on broad plains and dissected upland plateau.*

This map unit consists of soils that formed in glacial lake-laid deposits. The landscape is that of broad plains and strongly dissected valleys sides. The unit is in the central and northern parts of the county. Slopes are dominantly 3 to 25 percent but range from 0 to 50 percent.

This unit makes up about 4 percent of the county.

## **9--Canandaigua-Swornville-Tonawanda**

*Dominantly nearly level, very deep, very poorly drained to somewhat poorly drained, medium textured soils that have a medium content of lime; on broad flats in valleys.*

This map unit consists of soils that formed in glacial lake-laid deposits and in older alluvial deposits. The landscape is that of broad lowland valley floors traversed by sluggish, meandering streams. The unit is in the major valleys in the western part of the county. Slopes are dominantly 0 to 3 percent but range from 0 to 8 percent.

This unit makes up about 2 percent of the county.

## **Areas Dominated by Very Deep Soils Formed in Glacial Till and Glacial Outwash**

These soils make up 10 percent of the county. They formed in morainic glacial till and gravelly outwash. They are moderately well drained to somewhat excessively drained. They are on valley terraces, outwash fans, and outwash plains throughout the county. The soils generally are nearly level to rolling, except along terrace fronts and in dissected hilly areas, where they range to very steep.

## **10--Valois-Chenango-Castile**

*Dominantly gently sloping to strongly sloping, very deep, well drained to moderately well drained, medium textured and moderately coarse textured soils that have a low content of lime; on moraines and outwash plains in valleys*

This map unit consists of soils that formed in morainic glacial till and gravelly outwash. The landscape is made up of rolling plains and a series of low hills, benches, stream terraces, and alluvial fans that are mainly on the lower valley sides. The unit is in the major valleys throughout the county. Slopes are dominantly 3 to 15 percent but range from 0 to 50 percent. This unit makes up about 10 percent of the county.

### **Areas Dominated by Very Deep Soils Formed in Glacial Outwash and Recent Alluvium**

These soils make up 4 percent of the county. They formed in glacial outwash, silty lake-laid deposits, and recent alluvium. They are mainly in the major valleys that dissect the upland plateau in the central and southern parts of the county. In most areas the soils are nearly level and gently sloping. They are well drained to somewhat poorly drained.

## **11--Chenango-Pawling-Holderton**

*Dominantly nearly level, very deep, well drained to somewhat poorly drained soils, on glacial outwash fans, on alluvial flood plains, and in valleys.*

This map unit consists of soils that formed in glacial outwash and recent alluvium. The landscape consists of broad flats in the major valleys in the central and southern parts of the county. Slopes are dominantly 0 to 3 percent but range from 0 to 8 percent. This unit makes up about 4 percent of the county.

### **Areas Dominated by Very Deep Soils and Moderately Deep Soils That Formed in Residual and Colluvial Material**

These soils make up about 24 percent of the county. They formed in residual and colluvial material that are very deep to bedrock and residual material that is less than 40 inches deep over siltstone, sandstone and shale bedrock. They are in the southern part of the county. The soils are dominantly well drained to somewhat poorly drained.

## **12--Buchanan-Rayne-Portville**

*Dominantly gently sloping to moderately steep, very deep, well drained to somewhat poorly drained, moderately fine textured and medium textured soils that have a low content of lime; on uplands*

This map unit consists of soils that formed in colluvial and residual material derived dominantly from acid shale, siltstone, and sandstone. The landscape consists of broad, divided hilltops, hillsides, in saddles, and on side slopes in the upland plateau in the southern part of the

county. Slopes are dominantly 3 to 25 percent but range from 3 to 50 percent. This unit makes up about 9 percent of the county.

### **13--Carrollton-Kinzua-Onoville**

*Dominantly gently sloping to moderately steep, moderately deep and very deep, well drained to moderately well drained, moderately fine textured and medium textured soils that have a low content of lime; on uplands above elevations of 1800 feet*

This map unit consists of soils that formed in residual and colluvial material derived dominantly from acid shale, siltstone, and sandstone. The landscape is dominantly broad summits and saddles and dissected side slopes on plateaus at elevations above 1800 feet in the southern part of the county. Slopes are dominantly 3 to 25 percent but range from 3 to 50 percent. This unit makes up about 15 percent of the county.