

Trend Study 9-20-05

Study site name: Seep Hollow .

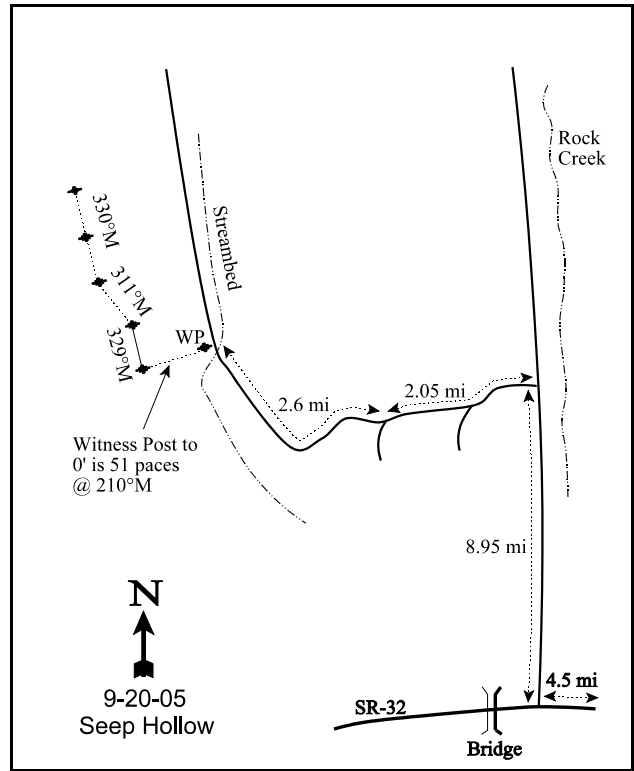
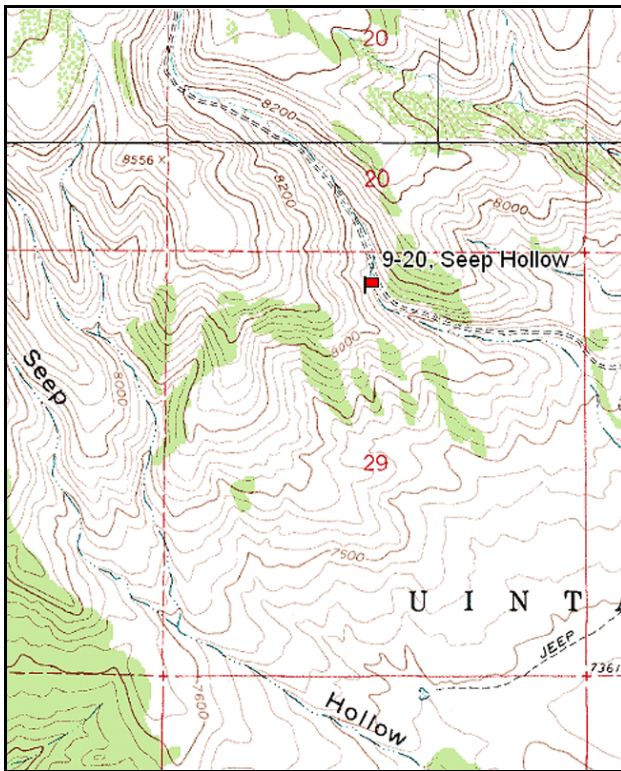
Vegetation type: Mountain Brush .

Compass bearing: frequency baseline 329 degrees magnetic.

Frequency belt placement: line 1 (7 & 86ft), line 2 (25ft), line 3 (59ft), line 4 (39ft). No rebar marking belt placement.

LOCATION DESCRIPTION

From highway SR 87, turn west onto highway SR 32 and travel 3.4 miles to Rock Creek Road, which is just east of mile marker 59 and the bridge over the Duchesne River. Turn right (north) onto Rock Creek Road and go north for 8.95 miles to a road on the left. Turn and travel west 2.05 miles to a fork. Bear right and proceed 2.6 miles to a streambed. From the intersection of the road and the streambed, the 0-foot baseline stake is 51 paces away at the heading of 210°M. The frequency baseline stakes are marked by green fenceposts 12-18 inches in height.



Map Name: Blacktail Mountain

Diagrammatic Sketch

Township 1S, Range 6W, Section 29

GPS: NAD 27, UTM 12T 4468681 N, 535104 E

DISCUSSION

Seep Hollow - Trend Study No. 9-20

The Seep Hollow trend study was established in 1982 and samples a mountain brush community. The land is owned by the Ute Indian Tribe and is on deer and elk winter range in the Seep Hollow-Dry Mountain Hollow area. Elevation is slightly below 8,000 feet on a northeast exposure with a steep slope of 50% to 60%. The site may not be accessible to wildlife during severe winters. Pellet group data from 2000 estimated 44 deer and 15 elk days use/acre (107 ddu/ha and 36 edu/ha). Pellet group data from 2005 estimated 92 deer and 54 elk days use/acre (227 ddu/ha and 134 edu/ha).

Soils are sandy loam in texture and very rocky on the surface and throughout the profile. Rocks range in size from a few inches to more than a foot in diameter. Due to the rockiness of the site, effective rooting depth is estimated at only 8 inches. Excluding rock cover, litter and vegetation cover are excellent and considering steepness of the slope, erosion is minimal. Bare ground is quite low at about 10% of the ground surface. The erosion condition class determined soil movement as stable in 2005.

Browse species are dominant and have provided over half of the total vegetation cover since 1995. Key species include: serviceberry, mountain big sagebrush, true mountain mahogany, and bitterbrush. Serviceberry density has increased during every sampling year since 1988 and has averaged 11% cover. In 2005, the population was estimated at 1,920 plants/acre. Young recruitment has been high during every year sampled, 30% of the population in 1995, 40% in 2000, and 44% in 2005. The average height is 4 feet and the crown is roughly the same. A small portion of the mature serviceberry were classified as unavailable to deer due to its height. Percent decadence has been low with vigor good during all years sampled. Utilization has been light to moderate since the site was established.

Mountain big sagebrush density has remained fairly stable until 2005, when it decreased from 2,340 plants/acre in 2000 to 1,600 in 2005. The percent of plants classified as dying increased from 5% in 2000 to 33% in 2005. Percent decadence has been moderate (22% on average) in preceding years, but in 2005 just under half the population was classified as decadent. Severe drought conditions were observed from 2000 to 2003 and other sagebrush stands in this herd unit have had similar decreases in sagebrush density. Seedlings were observed in low numbers, but it appears this population is becoming very mature with limited reproduction. Utilization is light to moderate with a few plants showing heavy use.

True mountain mahogany density have fluctuated slightly with changes in young recruitment. Population density estimated 680 plants/acre in 1995, 500 in 2000, and reached a high of 700 in 2005. Plants averaged 3.5 feet high and 4 feet wide with some plants only partially available to wildlife. Utilization has been moderate to heavy with good vigor. Percent decadency increased from 4% in 2000 to 26% in 2005. Young recruitment has been good and accounted for 24% of the population in 1995, 8% in 2000, and 14% in 2005. Bitterbrush density has steadily increased since 1982 with an estimated 840 plants/acre in 2005. The population is predominately mature with only a few young or decadent plants. Utilization is moderate to heavy with good vigor. Plants display a prostrate growth form.

The herbaceous understory is dominated by perennial grasses. Bluebunch wheatgrass, needle-and-thread, and mutton bluegrass are the most common. Bluebunch wheatgrass sum of nested frequency increased significantly in 2005, while mutton bluegrass decreased significantly. Other species that occur less frequently include: thickspike wheatgrass, a sedge species, Sandberg bluegrass, and squirreltail. Cheatgrass sum of nested frequency increased significantly in 2005, but still remains fairly uncommon with a low quadrat frequency. Forbs are somewhat diverse, but relatively scarce. The most common forbs include: biscuitroot, littleflower collinsia, and tapertip hawksbeard. Perennial forb sum of nested frequency increased by 44% in 2005 because of above normal precipitation. Annual forbs were almost non-existent in 2000, but returned in 2005 to 1995 levels with increased precipitation levels.

1982 APPARENT TREND ASSESSMENT

Soil and vegetative trend both appear stable. Although the site is on a steep slope, a good vegetative and litter cover helps limit soil loss. The browse component is in generally good condition and does not suffer from heavy use. A reasonable management objective might be to encourage expansion of true mountain mahogany and antelope bitterbrush. Hopefully, this could be achieved at the expense of low rabbitbrush and pricklypear.

1988 TREND ASSESSMENT

On this steep slope, ground cover is especially important for soil protection. Distribution of ground cover is almost unchanged from 1982 and currently soil erosion is not a problem. The community is basically stable, but data comparisons between readings in 1982 and 1988 do indicate a few significant changes. There was a rather large decrease in the number of snowberry encountered on the density plots, but the other large browse species have remained fairly stable. Mountain big sagebrush appears to be more moderately hedged in recent years, in contrast to the lightly hedged growth form reported in 1982. Still, the key browse species have good vigor and adequate recruitment. In the understory, there has been an increase in the frequency and density of western wheatgrass. A decrease in forb density was noted, along with an increase in the number of several small shrubs such as slenderbush eriogonum, Oregon grape, low rabbitbrush and pricklypear cactus.

TREND ASSESSMENT

soil - stable (0)

browse - stable (0)

herbaceous understory - stable (0)

1995 TREND ASSESSMENT

Trend for soil is slightly improved with a decline in percent bare ground from about 14% to almost 4%. Nested frequency of grasses and forbs also increased providing additional soil protection. Trend for key browse species is improving slightly for serviceberry, true mountain mahogany, bitterbrush, and snowberry. However, the trend is stable for the most abundant shrub, mountain big sagebrush which provides 27% of the browse cover. The population of sagebrush is becoming increasingly mature with no seedlings and few young observed. Density of the less desirable shrubs like mountain low rabbitbrush and wyeth eriogonum appear stable. Trend for the herbaceous understory is up with increased sum of nested frequency for perennial grasses and forbs. The 4 most abundant grasses all increased in nested frequency since 1988. The Desirable Components Index rated this site as good with a score of 85 due to excellent browse cover, low decadence, high young recruitment, and good perennial grass and forb cover.

TREND ASSESSMENT

soil - slightly up (+1)

browse - slightly up (+1)

herbaceous understory - up (+2)

winter range condition (DC Index) - Good (85) High Potential scale

2000 TREND ASSESSMENT

Trend for soil is considered stable even though there has been some slight changes. Erosion remains minimal due to good protective cover from vegetation and litter. Percent bare soil increased slightly, yet relative value is still only at 7%. The ratio of protective ground cover (vegetation, litter, and cryptogams) to bare soil decreased slightly from 6.5:1 to 5.3:1. Trend for browse is stable overall. The preferred species: serviceberry, true mountain mahogany, and bitterbrush show stable trends with good vigor, low decadency and acceptable levels of use. Mountain big sagebrush shows a slightly downward trend with increased decadency from 14%

to 26%, increased poor vigor from 6% to 28% and low recruitment. These downward parameters are drought related and should improve with better precipitation in the future. Trend for the herbaceous understory is slightly down as sum of nested frequency of perennial grasses and forbs decreased in 2000 due to drought. The Desirable Components Index rated this site as good to excellent with a score of 89 due to excellent browse cover, low decadence, high young recruitment, and excellent perennial grass and forb cover.

TREND ASSESSMENT

soil - stable (0)

browse - stable (0)

herbaceous understory - slightly down (-1)

winter range condition (DC Index) - Good to Excellent (89) High Potential scale

2005 TREND ASSESSMENT

Trend for soil is stable. Bare ground, litter, rock, and vegetation have all remained similar to 2000 values. The ratio of protective ground cover (vegetation, litter, and cryptogams) to bare soil remained good at 5:1. Trend for key browse species overall is slightly up. The preferred species: serviceberry, true mountain mahogany, and bitterbrush all show upward trends with increased density and good young recruitment. Mountain big sagebrush is down. Density decreased by 32% and percent decadency reached a high of 45%. Young recruitment is low and 33% of the population was classified as dying. Trend for the herbaceous understory is slightly up. Perennial grasses sum of nested frequency improved slightly, while perennial forbs increased by 48%. Forbs species richness was high at 32 species and seems to fluctuate with available moisture. The Desirable Components Index rated this site as excellent with a score of 93 due to excellent browse cover, low decadence, high young recruitment, and excellent perennial grass and forb cover.

TREND ASSESSMENT

soil - stable (0)

browse - slightly up (+1)

herbaceous understory - slightly up (-1)

winter range condition (DC Index) - Excellent (93) High Potential scale

HERBACEOUS TRENDS --

Management unit 09 , Study no: 20

| T y p e | Species | Nested Frequency | | | | Average Cover % | | |
|------------------|------------------------|-------------------|-------------------|------------------|------------------|-----------------|------|------|
| | | '88 | '95 | '00 | '05 | '95 | '00 | '05 |
| G | Agropyron dasystachyum | _b 82 | _b 66 | _a 22 | _a 20 | .93 | .19 | .14 |
| G | Agropyron spicatum | _{ab} 157 | _{ab} 160 | _a 122 | _b 202 | 2.94 | 4.10 | 6.57 |
| G | Bromus tectorum (a) | _a - | _a 14 | _a 2 | _b 38 | .08 | .00 | .36 |
| G | Carex sp. | _a 21 | _b 58 | _a 32 | _a 28 | 1.12 | .96 | .41 |
| G | Koeleria cristata | 9 | 2 | 9 | 2 | .04 | .36 | .03 |
| G | Oryzopsis hymenoides | _b 13 | _{ab} 1 | _{ab} 1 | _a - | .03 | .03 | - |
| G | Poa fendleriana | _b 122 | _b 124 | _b 142 | _a 72 | 2.27 | 4.82 | 2.38 |
| G | Poa secunda | _a 15 | _{ab} 23 | _{ab} 35 | _b 52 | .48 | .51 | .96 |
| G | Sitanion hystrix | - | 11 | 5 | 5 | .08 | .03 | .19 |
| G | Stipa comata | 68 | 119 | 109 | 116 | 4.09 | 5.21 | 4.32 |

| Type | Species | Nested Frequency | | | | Average Cover % | | |
|------|-----------------------------|------------------|------------------|------------------|------------------|-----------------|-------|-------|
| | | '88 | '95 | '00 | '05 | '95 | '00 | '05 |
| | Total for Annual Grasses | 0 | 14 | 2 | 38 | 0.07 | 0.00 | 0.36 |
| | Total for Perennial Grasses | 487 | 564 | 477 | 497 | 12.01 | 16.23 | 15.02 |
| | Total for Grasses | 487 | 578 | 479 | 535 | 12.09 | 16.24 | 15.38 |
| F | Allium sp. | - | 3 | - | 3 | .00 | - | .01 |
| F | Antennaria rosea | - | 11 | 4 | 7 | .07 | .06 | .04 |
| F | Arabis sp. | ab ² | a ⁻ | a ⁻ | b ¹⁰ | - | - | .07 |
| F | Artemisia ludoviciana | - | 4 | 3 | 3 | .18 | .15 | .15 |
| F | Astragalus sp. | - | 5 | 1 | 3 | .01 | .00 | .00 |
| F | Balsamorhiza sagittata | - | 1 | 2 | 2 | .15 | .03 | .53 |
| F | Castilleja linariaefolia | b ¹⁷ | ab ⁵ | b ¹³ | a ⁻ | .06 | .52 | - |
| F | Calochortus nuttallii | a ⁻ | b ¹³ | a ⁻ | b ¹⁸ | .04 | - | .05 |
| F | Chenopodium leptophyllum(a) | - | 2 | - | - | .01 | - | - |
| F | Cirsium sp. | 7 | 7 | 2 | 3 | .21 | .15 | .01 |
| F | Collomia linearis (a) | - | b ¹¹⁹ | a ⁻ | b ¹¹⁹ | .62 | - | .40 |
| F | Comandra pallida | 34 | 29 | 28 | 22 | .21 | .26 | .13 |
| F | Collinsia parviflora (a) | - | b ²⁴⁴ | a ¹² | b ²²⁷ | 1.53 | .04 | 1.94 |
| F | Crepis acuminata | a ⁻ | bc ¹⁹ | ab ⁷ | c ²⁵ | .21 | .07 | .80 |
| F | Cryptantha sp. | 7 | - | - | 1 | - | - | .00 |
| F | Descurainia pinnata (a) | - | b ¹¹ | a ⁻ | ab ³ | .05 | - | .03 |
| F | Draba sp. (a) | - | b ⁶⁷ | a ⁻ | a ⁶ | .20 | - | .03 |
| F | Erigeron eatonii | - | 1 | - | 2 | .00 | - | .15 |
| F | Erigeron flagellaris | 4 | 4 | 4 | 6 | .04 | .18 | .53 |
| F | Eriogonum racemosum | - | 7 | 3 | 2 | .04 | .03 | .03 |
| F | Eriogonum umbellatum | - | - | 7 | - | - | .15 | - |
| F | Gayophytum ramosissimum(a) | - | 5 | - | 3 | .01 | - | .00 |
| F | Hackelia patens | - | - | - | 1 | - | - | .00 |
| F | Heuchera parvifolia | a ⁻ | b ⁴¹ | b ²⁴ | b ³⁶ | .93 | .37 | .60 |
| F | Heterotheca villosa | - | - | 8 | - | - | .16 | - |
| F | Lappula occidentalis (a) | - | 3 | - | 2 | .01 | - | .00 |
| F | Lithospermum ruderale | - | 5 | 4 | 6 | .21 | .06 | .33 |
| F | Lomatium sp. | a ²⁰ | b ⁸³ | ab ⁴⁹ | c ⁸⁷ | 1.55 | .39 | 2.46 |
| F | Lupinus argenteus | - | - | 3 | 1 | - | .03 | .41 |
| F | Penstemon sp. | ab ¹¹ | ab ³ | a ⁻ | b ¹⁴ | .15 | - | .42 |
| F | Penstemon procerus | a ⁻ | b ¹¹ | b ⁸ | a ⁻ | .12 | .36 | - |
| F | Petradoria pumila | - | 3 | 1 | - | .03 | .03 | - |
| F | Phlox longifolia | - | - | - | 2 | - | - | .06 |

| T y p e | Species | Nested Frequency | | | | Average Cover % | | |
|---------------------------|--------------------------------|------------------|-----------------|----------------|-----------------|-----------------|------|------|
| | | '88 | '95 | '00 | '05 | '95 | '00 | '05 |
| F | <i>Polygonum douglasii</i> (a) | - | _c 20 | _a - | _b 15 | .05 | - | .03 |
| F | <i>Schoenocrambe linifolia</i> | - | - | - | 5 | - | .03 | .03 |
| F | <i>Senecio integerrimus</i> | 13 | 12 | 12 | 17 | .05 | .05 | .44 |
| F | <i>Sedum lanceolatum</i> | - | 4 | - | - | .01 | - | - |
| F | <i>Senecio multilobatus</i> | - | - | 3 | 1 | - | .00 | .00 |
| F | <i>Sphaeralcea coccinea</i> | - | 2 | 2 | 3 | .03 | .00 | .03 |
| F | <i>Stellaria jamesiana</i> | - | 4 | - | - | .01 | - | - |
| Total for Annual Forbs | | 0 | 471 | 12 | 375 | 2.48 | 0.04 | 2.45 |
| Total for Perennial Forbs | | 115 | 277 | 188 | 280 | 4.36 | 3.15 | 7.35 |
| Total for Forbs | | 115 | 748 | 200 | 655 | 6.84 | 3.19 | 9.80 |

Values with different subscript letters are significantly different at alpha = 0.10

BROWSE TRENDS --

Management unit 09 , Study no: 20

| T y p e | Species | Strip Frequency | | | Average Cover % | | |
|------------------|--|-----------------|-----|-----|-----------------|-------|-------|
| | | '95 | '00 | '05 | '95 | '00 | '05 |
| B | <i>Amelanchier utahensis</i> | 30 | 37 | 36 | 9.44 | 12.58 | 10.85 |
| B | <i>Artemisia tridentata vaseyana</i> | 76 | 72 | 48 | 8.63 | 6.60 | 4.52 |
| B | <i>Cercocarpus montanus</i> | 24 | 19 | 27 | 5.23 | 5.76 | 3.91 |
| B | <i>Chrysothamnus viscidiflorus lanceolatus</i> | 37 | 28 | 40 | .88 | 1.20 | 1.43 |
| B | <i>Eriogonum heracleoides</i> | 51 | 50 | 53 | 2.42 | 2.65 | 2.00 |
| B | <i>Mahonia repens</i> | 2 | 6 | 4 | .00 | .22 | .30 |
| B | <i>Opuntia</i> sp. | 24 | 18 | 25 | .37 | .25 | .58 |
| B | <i>Pediocactus simpsonii</i> | 3 | 0 | 2 | .03 | - | .03 |
| B | <i>Pinus edulis</i> | 0 | 4 | 7 | 1.04 | .56 | .78 |
| B | <i>Prunus virginiana</i> | 0 | 0 | 1 | .03 | - | - |
| B | <i>Purshia tridentata</i> | 20 | 28 | 25 | 2.42 | 4.71 | 3.28 |
| B | <i>Symphoricarpos oreophilus</i> | 46 | 42 | 46 | 3.95 | 4.66 | 4.33 |
| B | <i>Tetradymia canescens</i> | 0 | 0 | 1 | - | - | - |
| Total for Browse | | 313 | 304 | 315 | 34.46 | 39.23 | 32.05 |

CANOPY COVER, LINE INTERCEPT --
Management unit 09 , Study no: 20

| Species | Percent Cover |
|---|---------------|
| | '05 |
| Amelanchier utahensis | 21.43 |
| Artemisia tridentata vaseyana | 5.83 |
| Cercocarpus montanus | 6.30 |
| Chrysothamnus viscidiflorus lanceolatus | 2.91 |
| Eriogonum heracleoides | 2.21 |
| Mahonia repens | .05 |
| Opuntia sp. | .18 |
| Pinus edulis | 1.86 |
| Purshia tridentata | 5.91 |
| Symphoricarpos oreophilus | 10.58 |

KEY BROWSE ANNUAL LEADER GROWTH --
Management unit 09 , Study no: 20

| Species | Average leader growth (in) |
|-------------------------------|----------------------------|
| | '05 |
| Amelanchier utahensis | 4.1 |
| Artemisia tridentata vaseyana | 1.9 |
| Cercocarpus montanus | 4.6 |
| Purshia tridentata | 2.6 |

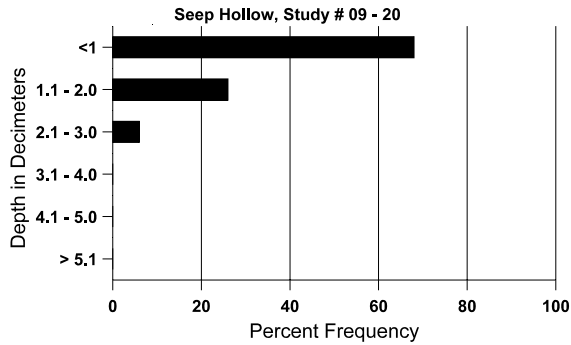
BASIC COVER --
Management unit 09 , Study no: 20

| Cover Type | Average Cover % | | | | |
|-------------|-----------------|-------|-------|-------|-------|
| | '82 | '88 | '95 | '00 | '05 |
| Vegetation | 8.50 | 7.50 | 43.34 | 58.95 | 48.67 |
| Rock | 10.50 | 14.00 | 14.42 | 14.38 | 14.96 |
| Pavement | 0 | 0 | .07 | 1.13 | .59 |
| Litter | 64.25 | 64.25 | 60.95 | 66.43 | 51.56 |
| Cryptogams | 1.25 | 0 | .33 | 1.05 | .45 |
| Bare Ground | 15.50 | 14.25 | 4.36 | 9.90 | 8.44 |

SOIL ANALYSIS DATA --
Herd Unit 09, Study # 20, Study Name: Seep Hollow

| Effective rooting depth (in) | Temp °F (depth) | pH | %sand | %silt | %clay | %0M | ppm P | ppm K | dS/m |
|------------------------------|-----------------|-----|-------|-------|-------|-----|-------|-------|------|
| 8.4 | 57.6 (9.5) | 6.7 | 73.3 | 16.2 | 10.6 | 4.7 | 9.6 | 102.4 | 0.7 |

Stoniness Index



PELLET GROUP DATA --

Management unit 09 , Study no: 20

| Type | Quadrat Frequency | | |
|--------|-------------------|-----|-----|
| | '95 | '00 | '05 |
| Rabbit | 5 | 3 | 8 |
| Elk | 9 | 9 | 14 |
| Deer | 27 | 15 | 28 |

| Days use per acre (ha) | |
|------------------------|----------|
| '00 | '05 |
| - | - |
| 15 (37) | 54 (134) |
| 44 (107) | 92 (227) |

BROWSE CHARACTERISTICS --

Management unit 09 , Study no: 20

| | | Age class distribution (plants per acre) | | | | | Utilization | | | | | |
|--------------------------------------|---------------------------------------|--|-------|--------|----------|------|-------------|---------|------------|---------|--------------|---------------------------|
| Y | Plants per Acre (excluding seedlings) | Seedling | Young | Mature | Decadent | Dead | % moderate | % heavy | % decadent | % dying | % poor vigor | Average Height Crown (in) |
| Amelanchier utahensis | | | | | | | | | | | | |
| 82 | 799 | - | 466 | 333 | - | - | 17 | 0 | 0 | - | 0 | 16/14 |
| 88 | 466 | - | 400 | 66 | - | - | 14 | 0 | 0 | - | 0 | 56/32 |
| 95 | 920 | 40 | 280 | 640 | - | - | 35 | 2 | 0 | - | 0 | 58/75 |
| 00 | 1400 | - | 560 | 820 | 20 | 40 | 24 | 3 | 1 | - | 0 | 52/63 |
| 05 | 1920 | 60 | 840 | 1040 | 40 | 20 | 19 | 6 | 2 | 1 | 1 | 47/49 |
| Artemisia tridentata vaseyana | | | | | | | | | | | | |
| 82 | 2666 | - | - | 2266 | 400 | - | 18 | 5 | 15 | .75 | 13 | 19/24 |
| 88 | 2732 | - | 400 | 1466 | 866 | - | 49 | 2 | 32 | .73 | 5 | 17/22 |
| 95 | 2440 | - | 20 | 2080 | 340 | 560 | 51 | 2 | 14 | 4 | 6 | 21/31 |
| 00 | 2340 | 20 | 60 | 1660 | 620 | 220 | 11 | 3 | 26 | 5 | 28 | 22/28 |
| 05 | 1600 | 120 | 60 | 820 | 720 | 1020 | 26 | 9 | 45 | 33 | 33 | 23/33 |

| | | Age class distribution (plants per acre) | | | | | Utilization | | | | | |
|--|---------------------------------------|--|-------|--------|----------|------|-------------|---------|------------|---------|--------------|---------------------------|
| Year | Plants per Acre (excluding seedlings) | Seedling | Young | Mature | Decadent | Dead | % moderate | % heavy | % decadent | % dying | % poor vigor | Average Height Crown (in) |
| Cercocarpus montanus | | | | | | | | | | | | |
| 82 | 533 | - | - | 533 | - | - | 38 | 0 | 0 | - | 25 | 33/21 |
| 88 | 466 | 66 | 133 | 333 | - | - | 100 | 0 | 0 | - | 0 | 28/39 |
| 95 | 680 | - | 160 | 520 | - | 20 | 59 | 9 | 0 | - | 0 | 44/47 |
| 00 | 500 | 40 | 40 | 440 | 20 | - | 28 | 48 | 4 | - | 4 | 36/38 |
| 05 | 700 | 20 | 100 | 420 | 180 | 20 | 3 | 83 | 26 | 3 | 3 | 44/48 |
| Chrysothamnus viscidiflorus lanceolatus | | | | | | | | | | | | |
| 82 | 733 | - | - | 733 | - | - | 0 | 0 | 0 | - | 0 | 11/9 |
| 88 | 1332 | - | 266 | 800 | 266 | - | 10 | 0 | 20 | - | 0 | 11/11 |
| 95 | 1060 | - | 20 | 1040 | - | - | 0 | 0 | 0 | - | 0 | 15/16 |
| 00 | 860 | - | - | 820 | 40 | - | 0 | 0 | 5 | - | 5 | 14/13 |
| 05 | 1260 | - | 80 | 1160 | 20 | - | 0 | 0 | 2 | - | 0 | 15/19 |
| Eriogonum corymbosum | | | | | | | | | | | | |
| 82 | 0 | - | - | - | - | - | 0 | 0 | - | - | 0 | -/- |
| 88 | 0 | - | - | - | - | - | 0 | 0 | - | - | 0 | -/- |
| 95 | 0 | - | - | - | - | - | 0 | 0 | - | - | 0 | -/- |
| 00 | 0 | - | - | - | - | - | 0 | 0 | - | - | 0 | 13/13 |
| 05 | 0 | - | - | - | - | - | 0 | 0 | - | - | 0 | -/- |
| Eriogonum heracleoides | | | | | | | | | | | | |
| 82 | 1933 | - | - | 1933 | - | - | 0 | 0 | 0 | - | 0 | 13/10 |
| 88 | 3066 | - | 1800 | 1266 | - | - | 0 | 0 | 0 | - | 30 | 5/7 |
| 95 | 2720 | - | 380 | 2340 | - | - | 0 | 0 | 0 | - | 0 | 8/15 |
| 00 | 2660 | - | 60 | 2540 | 60 | - | 0 | 0 | 2 | 2 | 2 | 6/9 |
| 05 | 2440 | - | 60 | 2380 | - | - | .81 | 0 | 0 | - | 0 | 6/13 |
| Mahonia repens | | | | | | | | | | | | |
| 82 | 1066 | - | - | 1066 | - | - | 0 | 0 | - | - | 0 | 4/6 |
| 88 | 2866 | 133 | 2533 | 333 | - | - | 0 | 0 | - | - | 7 | 3/5 |
| 95 | 280 | - | - | 280 | - | - | 0 | 0 | - | - | 0 | 5/7 |
| 00 | 340 | - | 20 | 320 | - | - | 0 | 0 | - | - | 0 | 4/5 |
| 05 | 320 | - | - | 320 | - | - | 0 | 0 | - | - | 0 | 3/5 |
| Opuntia sp. | | | | | | | | | | | | |
| 82 | 1332 | - | 466 | 866 | - | - | 0 | 0 | 0 | - | 0 | 4/8 |
| 88 | 2466 | 66 | 1466 | 1000 | - | - | 0 | 0 | 0 | - | 14 | 4/9 |
| 95 | 960 | 20 | 40 | 880 | 40 | 40 | 0 | 0 | 4 | - | 0 | 3/8 |
| 00 | 620 | - | 80 | 540 | - | - | 0 | 0 | 0 | - | 0 | 2/5 |
| 05 | 1040 | - | 60 | 980 | - | - | 0 | 0 | 0 | - | 2 | 4/11 |

| | | Age class distribution (plants per acre) | | | | | Utilization | | | | | |
|----------------------------------|---------------------------------------|--|-------|--------|----------|------|-------------|---------|------------|---------|--------------|---------------------------|
| Year | Plants per Acre (excluding seedlings) | Seedling | Young | Mature | Decadent | Dead | % moderate | % heavy | % decadent | % dying | % poor vigor | Average Height Crown (in) |
| Pediocactus simpsonii | | | | | | | | | | | | |
| 82 | 0 | - | - | - | - | - | 0 | 0 | - | - | 0 | -/- |
| 88 | 0 | - | - | - | - | - | 0 | 0 | - | - | 0 | -/- |
| 95 | 60 | - | - | 60 | - | - | 0 | 0 | - | - | 0 | 2/4 |
| 00 | 0 | - | - | - | - | - | 0 | 0 | - | - | 0 | -/- |
| 05 | 40 | - | - | 40 | - | - | 0 | 0 | - | - | 0 | 4/6 |
| Pinus edulis | | | | | | | | | | | | |
| 82 | 66 | - | - | 66 | - | - | 0 | 0 | - | - | 0 | 69/59 |
| 88 | 66 | - | - | 66 | - | - | 0 | 0 | - | - | 0 | 83/47 |
| 95 | 0 | - | - | - | - | - | 0 | 0 | - | - | 0 | -/- |
| 00 | 80 | - | 60 | 20 | - | - | 0 | 0 | - | - | 0 | -/- |
| 05 | 140 | - | 100 | 40 | - | - | 0 | 0 | - | - | 0 | -/- |
| Prunus virginiana | | | | | | | | | | | | |
| 82 | 0 | - | - | - | - | - | 0 | 0 | - | - | 0 | -/- |
| 88 | 0 | - | - | - | - | - | 0 | 0 | - | - | 0 | -/- |
| 95 | 0 | - | - | - | - | - | 0 | 0 | - | - | 0 | -/- |
| 00 | 0 | - | - | - | - | - | 0 | 0 | - | - | 0 | -/- |
| 05 | 20 | - | 20 | - | - | - | 0 | 0 | - | - | 0 | 24/32 |
| Purshia tridentata | | | | | | | | | | | | |
| 82 | 333 | - | - | 333 | - | - | 80 | 0 | 0 | - | 0 | 12/16 |
| 88 | 465 | - | 66 | 333 | 66 | - | 57 | 0 | 14 | - | 0 | 24/21 |
| 95 | 540 | - | 60 | 480 | - | - | 44 | 0 | 0 | - | 0 | 16/37 |
| 00 | 720 | 20 | 20 | 700 | - | - | 31 | 22 | 0 | - | 0 | 17/44 |
| 05 | 840 | - | 60 | 720 | 60 | - | 31 | 33 | 7 | 2 | 2 | 17/40 |
| Symphoricarpos oreophilus | | | | | | | | | | | | |
| 82 | 1599 | - | 200 | 1266 | 133 | - | 4 | 0 | 8 | - | 8 | 16/27 |
| 88 | 932 | - | 666 | 133 | 133 | - | 36 | 0 | 14 | - | 0 | 28/22 |
| 95 | 2340 | 40 | 400 | 1940 | - | - | 0 | 0 | 0 | - | 0 | 16/30 |
| 00 | 2360 | 20 | 320 | 2000 | 40 | - | 0 | 0 | 2 | - | 0 | 13/21 |
| 05 | 3140 | - | 560 | 2540 | 40 | - | 0 | 0 | 1 | - | 0 | 18/28 |
| Tetradymia canescens | | | | | | | | | | | | |
| 82 | 0 | - | - | - | - | - | 0 | 0 | - | - | 0 | -/- |
| 88 | 0 | - | - | - | - | - | 0 | 0 | - | - | 0 | -/- |
| 95 | 0 | - | - | - | - | - | 0 | 0 | - | - | 0 | -/- |
| 00 | 0 | - | - | - | - | - | 0 | 0 | - | - | 0 | -/- |
| 05 | 40 | - | - | 40 | - | - | 0 | 0 | - | - | 0 | -/- |