

FINDING OF NO SIGNIFICANT IMPACT/RATIONALE

FINDING OF NO SIGNIFICANT IMPACT: I have reviewed this environmental assessment including the explanation and resolution of any potentially significant environmental impacts. I have determined the proposed action and alternatives will not have significant impacts on the human environment and that preparation of an Environmental Impact Statement (EIS) is not required.

Rationale for Recommendations: The proposed action and alternatives would not result in any undue or unnecessary environmental degradation. The proposed action and alternatives will be in compliance with the Roswell Resource Management Plan and Record of Decision (October, 1997).

T. R. Kreager,
Assistant Field Manager, Resources

Date

**ENVIRONMENTAL ASSESSMENT
for
GRAZING AUTHORIZATION**

ALLOTMENTS 64060 & 64560
Townships 10, 11 and 12 South, Ranges 20, 21, 21½ and 22 East
Various Sections

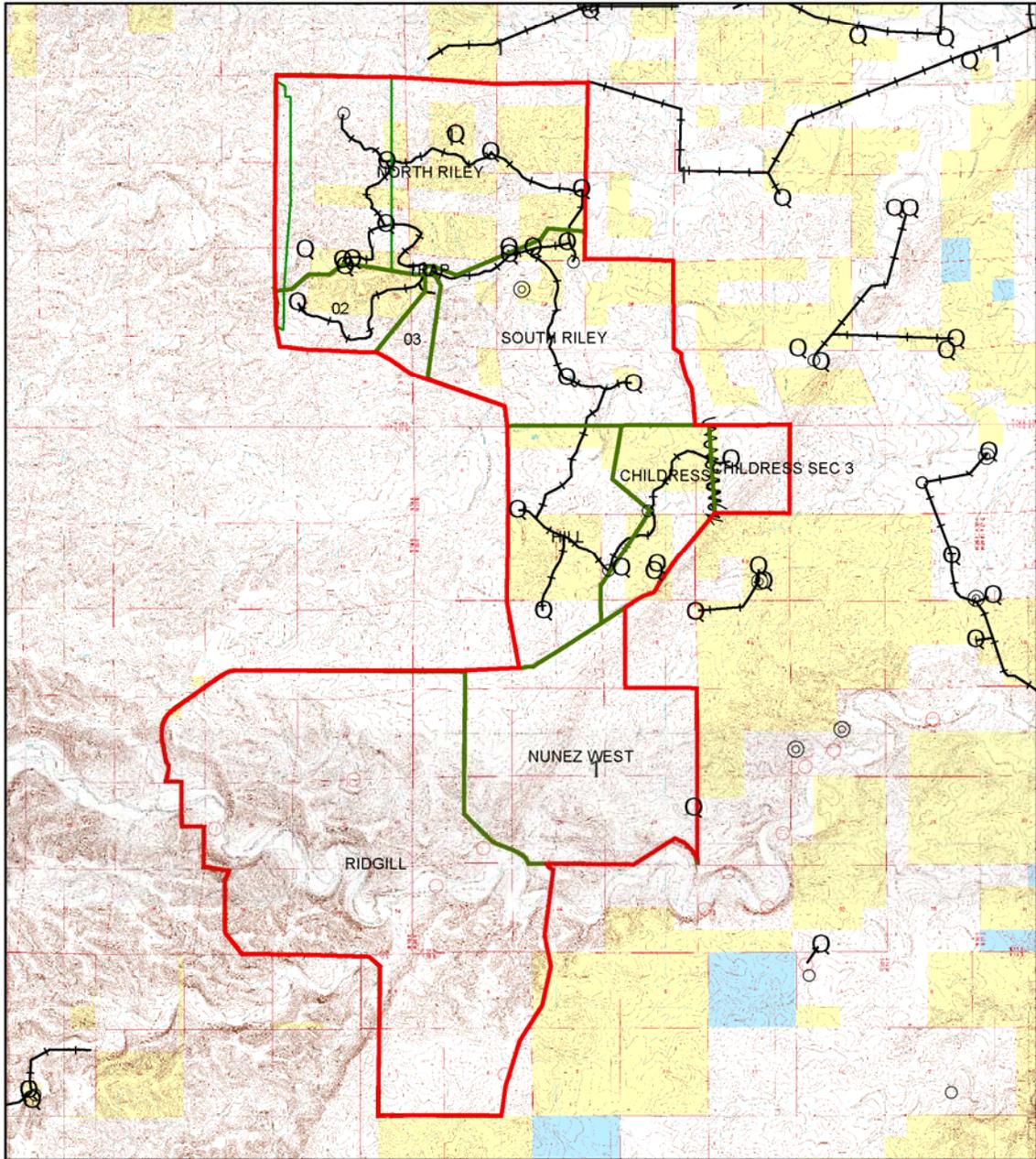
EA-NM-510-2005-0049

April, 2005

**U.S. Department of the Interior
Bureau of Land Management
Pecos District
Roswell Field Office
Roswell, New Mexico**



Hondo Canyon - 64560



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|--|--------------|--|--------------------|--|--------------|
| | State Land | | Allotment Boundary | | Water Well |
| | Public Land | | Pasture Fence | | Trough |
| | Private Land | | Base Waters in Red | | Windmill |
| | | | | | Storage Tank |

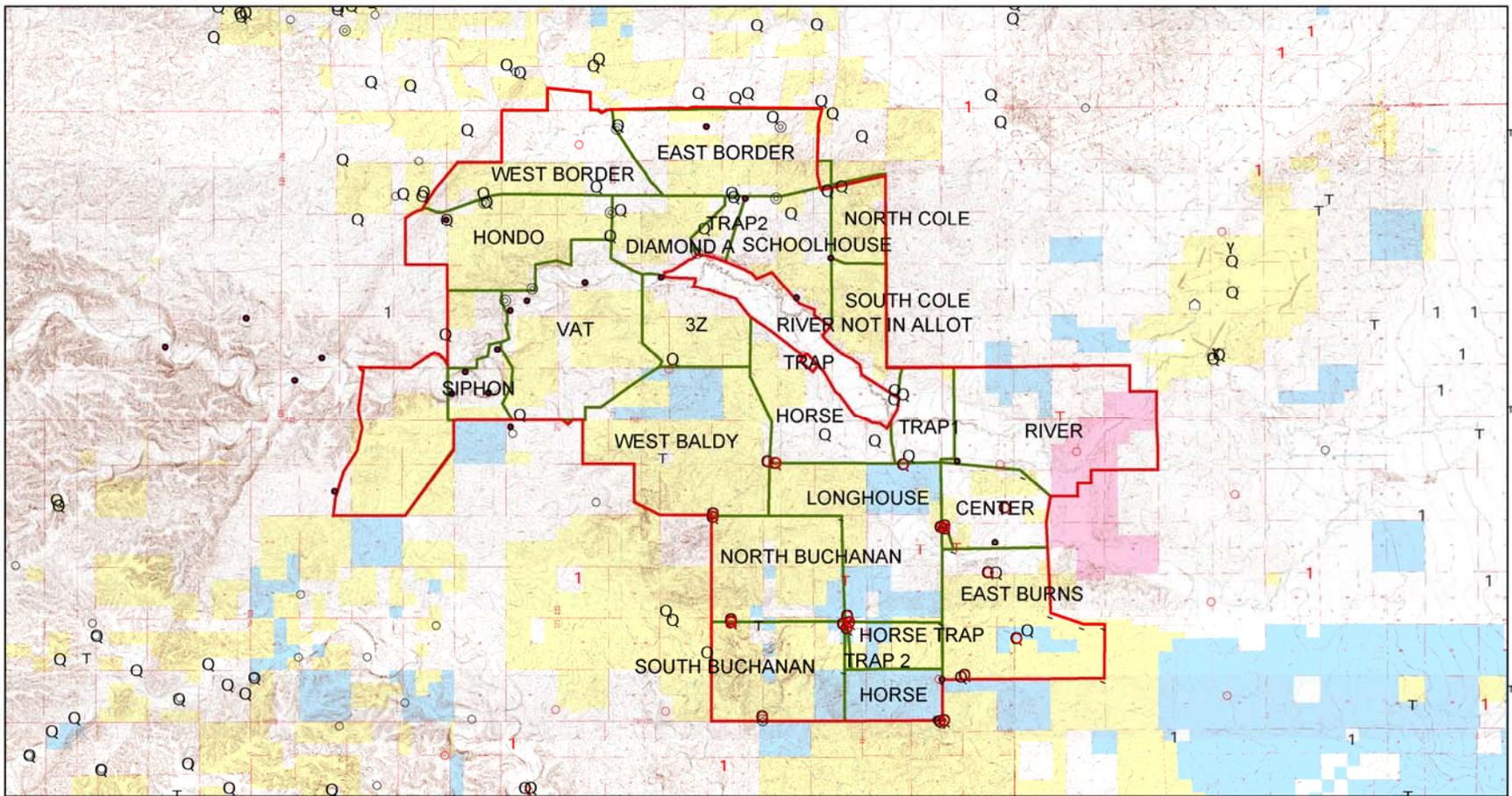


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Produced by the RFO GIS Specialist on Nov. 2, 2005.



Hondo Canyon - 64060



- State Land
- Public Land
- Private Land
- DOD

- Allotment Boundary
- Pasture Fence
- Barbed Wire Fence
- Water Pipeline
- Electric Fence



- Base Waters in Red**
- Antelope Pass
 - Retention Dam
 - Windmill
 - Storage Tank
 - Trough
 - Water Well

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Produced by the RFO GIS Specialist on March 23, 2005.

ENVIRONMENTAL ASSESSMENT
for
GRAZING AUTHORIZATION

ALLOTMENTS 64060 & 64560
Townships 10, 11 and 12 South, Ranges 20, 21, 21½ and 22 East
Various Sections

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I. Introduction

A. Purpose and Need for the Proposed Action

The grazing regulations (43 Code of Federal Regulations 4110) allow for a ten-year permit to be issued for grazing inside the grazing district boundary and ten year leases on allotments outside the grazing district boundary. The Roswell Resource Management Plan/Environmental Impact Statement (RMP/EIS) (October 1997) states a livestock grazing management goal of providing effective and efficient management of allotments to maintain, improve and monitor range conditions. A site specific analysis of the impacts of issuing a grazing permit and a grazing lease to the applicant, Ford Secure Trust, is needed for compliance with the National Environmental Policy Act (NEPA) and to make an informed decision. The permit and lease would specify the types and levels of use authorized, and the terms and conditions of the authorization pursuant to 43 CFR §§ 4130.3, 4130.3-1 and 4130.3-2.

The purpose of issuing a new grazing permit and lease would be to reauthorize livestock grazing on public land on allotments #64060 and #64560 and modify the permit term to coincide with the Bureau of Land Management (BLM) schedule for Public Land (Rangeland Health Assessments) with permit/lease renewals.

This document will analyze the site specifics of authorizing the issuance of the permit on Allotment 64060 (Hondo Canyon Ranch) and a grazing lease on Allotment 64560 (Hondo Canyon West), other future actions such as range improvement projects will be addressed in a project specific environmental assessment. There are current plans for additional management actions on these allotments. These allotments are within the Mixed Desert shrub vegetative community, the Drainages, Draws and Canyons community, the Pinon-Juniper community and the Grassland community as identified in the Roswell RMP/EIS. Vegetative communities managed by the Roswell Field Office are identified and explained in the RMP/EIS. Appendix 11 of the Draft RMP/EIS describes the Desired Plant Community (DPC) concept and identifies the components of each community.

B. Conformance with Land Use Planning

The Roswell RMP/EIS has been reviewed to determine if the proposed action conforms with the land use plan's Record of Decision. The Roswell RMP/EIS states a livestock grazing management goal of providing effective and efficient management of allotment to maintain, improve and monitor range conditions. The proposed action is consistent with the RMP/EIS.

C. Relationships to Statutes, Regulations, or Other Plans

The proposed action is consistent with the Federal Land Policy and Management Act of 1976 (FLPMA) (43 U.S.C. 1700 et seq.); the Taylor Grazing Act of 1934 (TGA) (43 U.S.C. 315 et seq.), as amended; the Clean Water Act (CWA) (33 U.S.C. 1251 et seq.), as amended; the Endangered Species Act (ESA) (16 U.S.C. 1535 et seq.) as amended; and the Public Rangeland Improvement Act of 1978 (PRIA) (43 U.S.C. 1901 et seq.); Executive Order 11988, Floodplain Management and Executive Order 11990, Protection of Wetlands.

II. Proposed Action and Alternatives

A. Proposed Action

The proposed action is to authorize a grazing permit on Allotment 64060 (Hondo Canyon Ranch) for 1560 Animal Units (AUs) year long for 10109 Animal Unit Months (AUMs) and a grazing lease on Allotment 64560 (Hondo Canyon West) for 115 AUs year long for 1380 AUMs for the term of ten years. The permit and lease would be offered to Ford Secure Trust c/o Royce Griggs. Grazing will be authorized from March 1 through the last day of February of each year. The classes of livestock will include cattle, sheep, goats and horses.

B. No Authorization Alternative

This alternative, if selected, would be to not issue a grazing permit for Allotments 64060 or a lease on Allotment 64560. No grazing would be authorized on the federal land within the allotments. The No Grazing Alternative was considered, but not chosen in the Rangeland Reform Environmental Impact Statement (EIS) Record of Decision (ROD) (p. 28). The elimination of grazing in the Roswell Field Office Area was considered by eliminated by the Roswell RMP/ROD (pp. ROD-2).

C. Change in Season of Use alternative:

A change in the season of use from yearlong grazing to a nine month season of use to coincide with some proposed management schemes was considered and discussed with the permittee. This alternative was dropped from further consideration. A shorter season of use can be accommodated under the yearlong permit or lease and retain the option of returning to yearlong grazing should conditions change without

the necessity of having to modify the permit or lease during the term of the permit or lease. This alternative will not be analyzed.

III. Affected Environment

A. General Setting

Allotment 64060 is located in Lincoln and Chaves Counties, about twelve miles west of Roswell, New Mexico. The allotment is made up of twenty pastures, and three traps of various sizes. The allotment is watered by fifteen base water wells, 6 additional supplemental water wells, a water pipeline system, several dirt tanks, irrigation canals and the Rio Hondo. The allotment consists of 33,623 acres of public land, approximately 20,804 acres of private land and 6320 acres of state leased lands (See attached map). The allotment surrounds but does not include a tract of approximately 2,229 acres of privately held irrigated fields.

Allotment 64560 is located in Lincoln County, on the west side of Allotment 64060, outside the grazing district boundary. This allotment consists of 4,721 acres of public land and 17,965 acres of private land. The allotment is split into ten pastures and two traps. Seven wells exist within the allotment. The Rio Hondo bisects the ranch, but no public land borders the river.

Allotment 64060 (Hondo Canyon Ranch) lies inside the Roswell Grazing District Boundary, established subsequent to the Taylor Grazing Act, and it is administered under Section 3 of the TGA. The permitted use on a Section 3 permit is established by the amount of forage produced on the public land and all other controlled land, such as private, leased and state grazing leased land. The public animal unit months are then derived from the amount of forage from the public lands in relationship to all forage produced. During the late 1930's and 40's BLM and the allottee at that time agreed to the number of stock the ranch could run. Since then, BLM Roswell has been very involved in vegetation monitoring and range evaluations. Using these data adjustments to stocking rates and total numbers has been made on allotments throughout the resource area. BLM has established the number of stock allowed on the entire ranch, inclusive of all land status, excluding only lands that are not controlled by the allottee (not owned or leased).

Allotment 64560 (Hondo Canyon West) is located outside the Roswell Grazing District Boundary. It is administered under Section 15 of the TGA. Permitted use on scattered tracts is determined by the amount of forage produced on the public lands alone and the number of stock on the entire ranch is not controlled by the BLM. Due to the amount of public land (4,721 acres) in relation to the amount of private land on this allotment, the BLM does not control the number of stock allowed on this allotment.

The area of Allotment 64060 and 64560 consists of rolling grass covered hills, with a mixed desert shrub aspect. The average elevation ranges from 4,050 to 4,900 feet above sea level. Grass species make up a predominant portion of the production in the existing plant community, although the percentages of grasses, forbs and shrubs actually found at a particular location will vary with recent weather factors and past resource uses. The average recorded precipitation for the area is 12.58 inches (recorded in Roswell, NM). Most of the annual precipitation falls during high intensity, short duration thunderstorms occurring from May to October.

The following resources or values have been evaluated and are either not present or are not affected by the proposed action or alternatives in the EA: Prime/Unique Farmlands, Cultural Resources, Native American Religious Concerns, Wild and Scenic Rivers, Hazardous Wastes, and Areas of Critical Environmental Concern. The impact of the proposed action and alternative to minority or low-income populations or communities has been considered and no significant impact is anticipated. Cultural inventory surveys would continue to be required for federal actions involving surface disturbing activities.

B. Affected Resources

1. Soil

The soils present on Allotment #64560 and #64060 in Lincoln County are Ector-Kimbrough association, gently sloping, moderately sloping, the Ector-Rock outcrop association, moderately steep and the Ector-Rock outcrop association, both which are found in Lincoln and Chaves counties. The soils in Chaves County are the Bigetty-Pecos association, the Lozier-Tencee complex, the Pecos-Dev association, the Reakor-Pecos association, the Pecos silty clay loam, nonsaline, 0-3 percent slopes, the Tencee cobbly loam, 5-30 percent slopes on gently rolling to hilly areas, the Tencee-Upton complex, and the Upton-Atoka association.

Soils on the uplands are generally very shallow to shallow, well drained, moderately permeable. They are nearly level to very steep cobbly loams and gravelly loams. Most are 4 to 20 inches deep over limestone, indurated caliche and rock outcrop. Soils in the valleys are deep, well drained and moderately well drained. They range from very slowly permeable to moderately rapidly permeable. These soils are level to nearly level of various textures on the flood plains. The loams, which are either cobbly or silty clay loams, vary from being rarely to frequently flooded.

More information on these soils can be found in the "Soil Survey of Chaves County, New Mexico, Southern Part" and the "Soil Survey of Lincoln County, New Mexico".

2. Vegetation

The vegetation on the public land within Allotment #64060 fits five major ecological sites: the Shallow SD-3, Limestone Hills CP-3, the Shallow CP-4, Very Shallow CP-4, and Limestone Hills CP-4. In the Shallow SD-3 and in the Shallow CP-4 Ecological sites black grama is the most abundant grass, while sideoats grama, hairy grama, blue grama, Halls panicum, vine mesquite, wolftail, burrograss, sand dropseed, tridens, sand and ear muhly, tobosa and three-awn are also found. Shrubs such as catclaw acacia, yucca, broom snakeweed, littleleaf sumac, bear-grass and mesquite are also found on these range sites. Forbs which may occur in these areas are buckwheat, croton, wooly groundsel, bladderpod, and globemallow. The differences between the two sites include the soils and percentages in which the vegetation occurs at potential.

In the Very Shallow CP-4 Ecological site, black grama is again the most abundant grass with good representations of sideoats grama, tridens, dropseed, blue grama, burro grass and three-awn. Other grasses such as tobosa, sand and ear muhly, vine mesquite, hairy grama and wolftail were also noted on these sites. The shrub component is made up of yucca, cactus, with some mesquite and an occasional broom snakeweed, mormon tea and catclaw. Many of the same forbs found in the Shallow SD-3 and CP-4 site were apparent in the Very Shallow CP-4 site. The Limestone Hills SD-3 and CP-4 Range sites, found on generally on the most shallow soils with the greatest amount of slope, have a high amount of black grama, blue grama and sideoats. Other grasses noted in these sites are hairy grama, three awn, muhlys, dropseeds, and wolftail. The forb component in all of the sites varies from year to year, dependent upon the amount and timing of precipitation. Again the differences between the two sites include elevation, soils and percentages at which the vegetation occurs at potential.

From 1978 to 1999 agencies were using the traditional range condition methodology to depict range condition. This compared collected rangeland monitoring information with the potential vegetation community in terms of species composition by weight. The rating is based on a scale of 0 to 100 with 100 being the actual representative site.

In 1999, the National Resource Conservation Service (NRCS) revised the methodology for comparing the existing vegetation community with the potential vegetation community and to aid in the determination of ecological condition. The methodology is called the Similarity Index (SI). The BLM is currently incorporating this revision into the monitoring and evaluation processes. The SI compares existing vegetation data (collected from rangeland monitoring) with the potential vegetation community described in the NRCS ecological site guide for that site. The index is based on a scale of 0 to 100 with 100 being the actual representative site. For the Shallow CP-4 ecological (range) site, the normal year production is about 775 pounds per acre, in drought years the average production falls to 450 pounds per acre, and in very good years reaching an average of 1,100 pounds per acre. The Very Shallow CP-4 ecological site, in a normal year, produces an average of 675 pounds per acre, dropping to 250 in drought periods and reaching as high as 1,100 pounds per acre in

very good years. The Limestone Hills CP-4 ecological site produces on average 1,225 pounds per acre, the average drops to 700 pounds per acre in dry years and reaches 1,750 pounds per acre in wet years. The Shallow SD-3 range site produces on average 525 pounds per acre in normal years, under dry conditions the average drops to 250 pounds per acre, and reaches an average of 800 pounds per acres in very good years. The Limestone SD-3 Range site produces 600 pounds per acre in dry years, 1000 pounds per acre in normal years and 1400 pounds per acres in very good years. The index for the range site takes into account vegetation species present and the *relative amount of production for each species* when compared to the potential for the range site.

The RFO is currently in the process of integrating the revised methodology into current monitoring and evaluation processes. The traditional range condition rating method (used from 1980 to 1998) is retained for comparison purposes.

The percent bare ground and rock found on the allotment falls within the parameters established by the RMP/EIS for these vegetative communities. Copies of the monitoring data and the analysis of the data are available at the Roswell Field Office.

Monitoring data has been collected in 1983, 1987, 1992, 1997 and 2004. Analysis of the monitoring data indicates that range trend is static and that with a 45% use factor, there is sufficient forage (on a sustainable basis) for the number of animal units permitted.

The long term vegetation production, ground cover and trend data for these allotments is shown at the end of this document. Rangeland health assessments were also completed on these allotments in 2003 & 2004; this documentation may be reviewed at the Roswell Field Office.

3. Wildlife

The area provides habitat for small animals, birds, rodents, and a sustainable population of mule deer and Barbary sheep. The area contains motts of brush or tree species that could provide quality cover for the larger animals.

Game species occurring with the area include mule deer, pronghorn, mourning dove and scaled quail. Raptors that utilize the area on a more seasonal basis include the Swainson's, red-tailed, and ferruginous hawks, American kestrel, and great-horned owl. Numerous passerine birds utilize the grassland areas. The most common include the western meadowlark, mockingbird, horned lark; kill deer, loggerhead shrike, and vesper sparrow.

The warm prairie environment supports a large number of reptile species compared to higher elevations. The more common reptiles include the short-horned lizard, lesser earless lizard, eastern fence lizard, coachwhip, bullsnake, prairie rattlesnake, and western rattlesnake.

The allotment is located in the Macho Wildlife Habitat Area (WHA). The management goal for the WHA is to manage for a healthy population of pronghorn within the special management area.

For a general description of wildlife occupying or potentially utilizing the allotment area, refer to the Affected Environment Section (p. 3-62 to 3-71) of the Draft Roswell RMP/EIS (September, 1994).

4. Threatened and Endangered Species

The only known threatened or endangered species of plant or animals which may be observed on Allotments 64060 and 64560 is the bald eagle. A list of federal threatened, endangered and candidate species reviewed for this EA can be found in Appendix 11 of the Roswell Approved RMP (AP11-2). Of the listed species, avian species such as the bald eagle and peregrine falcon may possibly be observed in the general geographic area during migration or winter months. There are no designated critical habitat areas within these allotments. The swift fox is a Federal Candidate species that may occupy or utilize the area, refer to the Biological Opinion (AP11-38) in the Roswell RMP for a detailed description of the range, habitats and potential threats.

5. Livestock Management

The allotments are grazed by cattle and sheep, using a cow-calf and a sheep operation. Horses and goats may also be authorized. The horses are generally used for working stock. The latest grazing permit on Allotment 64060 (Hondo Canyon Ranch) was for 357 cows and 2800 sheep, the lease on Allotment 64560 (Ridgill) was for 2 cows. The livestock are rotated in the pastures, using a best pasture rotation system. As the public land lies on the uplands, rest periods generally occur during the summer when the stock is moved to an area of all private land. Due to the acquisition of Allotment 64061 to the south, and Allotment 63060 on the west side and Allotment 63164 to the northwest of Allotment 64060; 64061 and 63060 are to be combined under Allotment 64060, the proposed permit would reflect 940 cattle, 2995 sheep, 5 goats and 20 horses. Allotment 64560 now includes the former Allotments 63099, 63164 and 64560. The lease offered for the current 64560 would be for 112 cows, 1 horse, 5 sheep and 5 goats.

6. Visual Resources

Allotments 64060 and 64560 are located in a Class III and a Class IV Visual Resource Management (VRM) Area. The Class III rating area extends approximately 1 to 2 miles either side of US Highway 70/380 which traverses Allotment 64060 and Allotment 64560. The Class IV rating area extends over the remaining portion of the allotments. The Class III rating means that contrast to the basic elements caused by a management activity may be evident and begin to attract attention in the landscape. The changes, however, should remain subordinate in the existing landscape. The Class IV rating means that contrasts may attract attention and be a dominant feature in the landscape in terms of scale. However, changes should repeat the basic elements of the landscape.

7. Water Quality

The Rio Hondo is a major tributary of the Pecos River, flowing through the allotment from west to east. It passes through Roswell before reaching the river approximately 21 miles to east. The Hondo is perennial in the relatively steep-gradient reach on the upper end of the allotment, but is ephemeral in the alluvial valley below the ranch headquarters. Water withdrawals for irrigation of fields in the lower reach reduce streamflows. Livestock access to the Hondo is limited by fences and steep slopes.

The New Mexico Water Quality Control Commission has designated uses for ephemeral and perennial reaches of the Rio Hondo (WQCC 1995). Designated uses below the perennial reach (Segment 2206) include irrigation, livestock watering, wildlife habitat, secondary contact (e.g., wading), and warmwater fishery. These include uses in the mainstem of the Pecos River which can be affected by flow contributed from the Rio Hondo. Designated uses for the perennial reach of the Rio Hondo (Segment 2208) include fish culture, irrigation, livestock watering, wildlife habitat, coldwater fishery, and secondary contact.

Water quality assessments are performed by the State of New Mexico to determine whether designated uses are being supported. Water quality on the both reaches of the Rio Hondo is sufficient to fully support the designated uses (WQCC 1994).

Dirt tanks, irrigation canals and the Rio Hondo are the only surface water, none of which are located on the public land. The amount of water and period of retention in the dirt tanks is dependent on the weather conditions. Ground water is pumped from twenty five plus drilled wells across both allotments. The quality of the well water is adequate for livestock and wildlife use, and irrigation.

8. Floodplains, Riparian/Wetlands

Within this allotment floodplains exist that are recorded on Federal Emergency Management Agency maps. The identified floodplains are generally the major drainages along the Rio Hondo and Rocky Arroyo. Water pipelines, fences and roads cross the floodplains; no adverse impacts have resulted from these improvements. No future permanent, above ground structures will be authorized on federal lands within the floodplains.

Areas along the perennial reaches of the Rio Hondo are considered to be riparian or wetland areas. As these areas exist on private land no permanent study locations have been placed. It has been noted that the riparian types of vegetation such as cottonwoods, sedges, and willows are present and appear to be abundant and vigorous. Again, as these areas exist on private land no further discussion will be included on this subject.

9. Air Quality

Air quality is good. The area is in a Class II area for the prevention of significant deterioration of air, as defined in the federal Clean Air Act. Class II areas allow a moderate amount of air quality degradation.

10. Recreation, Caves and Karst

Recreation: Dispersed recreational opportunities exist in Allotment 64060 as access to the public land is available along US Highway 70/380. Dispersed recreational activities include hunting, caving, fishing, sightseeing, bird watching, primitive camping, mountain biking, horseback riding and hiking. Off Highway Vehicle designation for public lands within this allotment are classified as "Limited" to existing roads and trails. The majority of public lands in this allotment can only be accessed by foot (hiking, or walking).

Recreation opportunities are limited in Allotment 64560 because the public has limited legal/physical access to public lands on the south side of US Highway 70/380. The two parcels of public land within this portion of the allotment exist along the edge of the allotment, one along a curve in US Highway 70/380 and the other is surrounded by private lands. The public lands on the north side of the highway are available for dispersed recreational activities and are usually accessible by foot (hiking or walking).

Caves and Karst: Allotment 64060 is located within a designated area of Medium Karst and Cave Potential.

Although a complete significant cave or karst inventory has not been completed for the public lands located in this grazing allotment, a significant cave or karst feature is known to exist within this allotment. Monitoring of the Cave/Karst feature will be necessary to determine if protective measures are required in the future.

Allotment 64560 is located within a designated area of medium Karst or Cave Potential.

Off Highway Vehicle designation for the public land within these allotments is classified as "Limited" to existing roads and trails.

11. Non-Native and Invasive Species: A noxious weed is defined as a plant that causes disease or has other adverse effects on the human environment and is, therefore, detrimental to the public health and to the agriculture and commerce of the United States. Generally, noxious weeds are aggressive, difficult to manage, parasitic, are carriers or hosts of harmful insects or diseases, and are either native, new to or not common in the United States. In most cases, however, noxious weeds are non-native species.

The list currently includes the following weeds: 1) African rue, 2) black henbane, 3) bull thistle, 4) camelthorn, 5) Canada thistle 6) dalmation toadflax, 7) goldenrod, 8)

leafy spurge, 9) Malta starthistle, 10) musk thistle, 11) poison hemlock, 12) purple starthistle, 13) Russian knapweed, 14) Scotch thistle, 15) spotted knapweed, 16) teasel, 17) yellow starthistle, 18) yellow toadflax, 19) Russian olive, 20) Tamarix species, 21) Siberian elm.

Of the noxious weeds listed, the ones with known populations in the Roswell Field Office are African rue, non-native *Cirsium* spp. such as bull thistle, and Canada thistle, leafy spurge, goldenrod, Malta starthistle, Russian knapweed, Tamarix species and Scotch thistle. Also “problem weeds” of local concern are cocklebur, buffalobur and spiny cocklebur. “Problem weeds” are those weeds which may be native to the area but whose populations are out of balance with other local flora.

Further, noxious weeds can negatively affect livestock and dairy producers by making forage either unpalatable or toxic to livestock, thus decreasing livestock productivity and potentially increasing producers’ feed costs and animal health care costs. Increased costs to operators are eventually borne by consumers.

Noxious weeds also affect recreational uses, and reduce realty values of both the directly influenced properties and adjacent properties.

Recent federal legislation has been enacted requiring state and county agencies to implement noxious weed control programs. Monies would be made available for these activities from the federal government, generated from the federal tax base. Therefore, all citizens and tax payers of the United States are directly affected when noxious weed control prevention is not exercised.

There are no known non-native or invasive species found on these allotments.

12. Oil and Gas/Rights of Way: At present oil and gas /rights of way activities are limited on this allotment. Due to the increased exploratory activities within this area, there is the potential for new development. There will be no further discussion of this resource.

IV. Environmental Impacts

A. Impacts of the Proposed Action

1. Soils

The soils will be influenced by livestock grazing directly by compaction, trailing that may break through the turf, chipping of soil surface caused by hoof action, and recycling of nutrients. Infiltration rates are increased by chipping of soil surface over most of the area but will be decreased by compaction around watering, trailing, and bedding areas. The area of compaction would be relatively small. Livestock remove vegetation that would have reduced the erosive forces of wind, rain and surface runoff. Proper utilization levels and grazing distribution patterns under the present operation retain sufficient vegetative cover so as to maintain the stability of the soils. The level of grazing identified in the proposed action would continue to maintain an adequate ground cover for protection and the development of the soils.

With the timing and control of grazing use, proper utilization levels and grazing distribution pattern are expected to improve the vegetative cover on the allotments as a whole; this will maintain the stability of the soil. Positive affects from the proper management include: improvement in soil stability, biotic integrity, hydrologic function and nutrient cycling; and a decrease in plant pedestaling.

Ongoing vegetation studies conducted on the allotments indicate that, at the level of grazing identified in the proposed action, the percent bare ground and rock found on the allotments fall within the parameters established by the RMP/EIS for this vegetative community. Proper utilization levels and grazing distribution patterns are expected to retain sufficient vegetative cover on the allotments as a whole and this will maintain the stability of the soil. Soil compaction and excessive vegetative use will occur at small localized areas such as drinking location, along trails and at bedding areas. Positive affects from the proposed action include the speeding up of the nutrient cycling process and chipping of the soil crust by hoof action.

2. Vegetation

There are twenty four vegetative studies on these allotments, established in 1982. Ecological conditions as shown by the data collected from 1982 through 2004 indicate the vegetation is sustainable at the proposed amount of grazing by livestock.

Vegetation studies indicate that the diversity and amount of vegetation present meets the multiple resource requirements and will support the number of livestock proposed for these allotments. Copies of the monitoring data and the analysis of the data are available at the Roswell Field Office.

3. Wildlife

Domestic livestock will continue to utilize vegetative resources needed by a variety of wildlife species for life history functions within this allotment. The magnitude of livestock grazing impacts on wildlife is dependent upon the species of wildlife being considered, and its habitat needs. In general, livestock stocking rate adjustments have been made in the past to minimize the direct competition for those vegetative resources needed by a variety of wildlife species. Cover habitat for wildlife will remain the same as the existing situation. Maintenance and operation of existing waterings will continue to provide dependable water sources for wildlife, as well as livestock

4. Threatened and Endangered Species

Livestock grazing as a result of the grazing permit, may affect, but not likely adversely affect the bald eagle and peregrine falcon. It is expected that habitat and range condition would be maintained or improved by authorizing grazing conducive with vegetation production goals. Habitat for wintering bald eagles would not have significant negative impacts by livestock grazing since there is no presence of riparian habitats nearby, and no active or suitable nesting habitat. Positive impacts may result to the bald eagle from the proposed action by increasing the amount of carrion during the late winter and early spring in sheep allotments. The important riparian habitat that is required for the peregrine falcon is located all on private lands and not under surface management control of the Bureau of Land Management.

5. Livestock Management

The proposed action would allow the existing livestock management to continue. The existing management is not causing any adverse impacts to the environment. The distribution and supply of livestock water is available for wildlife. Livestock under rotation grazing will continue to maintain or increase ground cover by stimulating growth of vegetation and by scattering litter which protects the soil from wind and water erosion.

6. Visual Resources

Visual resources will be managed to meet the Visual Resource Management class. All proposed management activities will be evaluated with regard to visual resource management and those projects that are compatible with the character of the natural landscape will be encouraged. No management actions should be proposed that would degrade visual quality to the extent that a change in any VRM class will result. The continued grazing of livestock would not affect the form or color of the landscape, or the primary aspect of the vegetation within the allotment.

7. Water Quality

Livestock grazing will not have a significant influence on water quality. The State of New Mexico conducts water-quality assessments to ensure streams segments' designated uses are supported. The uses on Segments 2206 and 2208 are fully supported; indicating water quality is not significantly affected by livestock grazing on the allotment. The ground water is not affected by livestock grazing.

8. Floodplains, Riparian/Wetlands

No impacts to the floodplains are known, by keeping structures out of floodplains, impacts should not occur.

9. Air Quality

The proposed action will not have an effect on the air quality. The air quality will remain virtually the same as present.

10. Recreation, Caves and Karst

Grazing should have little or no impact on the dispersed recreational opportunities within Allotment 64060 or 64560 since the recreational use of these public lands are relatively low. The evidence or presence of livestock can negatively affect visitors who desire solitude, unspoiled landscape views or hike without seeing signs of livestock. However, grazing can benefit some forms or recreation, such as hunting, by creating new water sources for game animals.

Continued grazing of the allotment may affect significant caves or karst resources if protective measures are not followed. If monitoring determines that significant caves or karst features are being affected by grazing, additional protective measures will be required. The protective measures could include, but are not limited to, the following actions: Fencing sinks, cave entrances or arroyos from multiple-use impacts; removing check-dams, erosion control projects and stock ponds; closing roads; no chemical vegetation removal. The area around significant caves or karst features should be treated sensitively, so no adverse impacts affect the cave or karst feature.

11. Non-Native and Invasive Species: Grazing should have little or no impact on non-native or invasive species. None are currently found with these allotments. Precaution should be taken prior to utilization of any supplemental feed programs in order to prevent any infestations from occurring. Good grazing management practices are in place to prevent situations that would allow for soil disturbances that would open areas for infestation by noxious or invasive species.

B. Impacts of the No Livestock Grazing Alternative

1. Soils

The soil will not be subjected to compaction, chipping or standing vegetation reduction that is associated with livestock grazing. The stability and development of the soil would be about the same as with grazing. Soil compaction would be reduced on the allotment around drinking troughs and along trails. The ecological site guides (www.nm.nrcs.usda.gov) describes some of the potential adverse impacts that could occur. If the present communities are maintained no adverse affects are likely to occur however, if the communities degrade over time, an increase in bare ground and subsequent increase in soil erosion may occur.

2. Vegetation

There would be small change in the types and amounts of vegetation found within the allotment. It is expected that the number of plant species found within the allotment will remain the same. Vegetation will continue to be utilized by wildlife but the removal of the standing vegetation by livestock would be absent. In the short term, the present plant community would remain as it is now. In the long term there may be small changes in the relative percentages of the species. Plant vigor and health may decline due to the decreased grazing.

3. Wildlife

There would be no competition between livestock and wildlife for forage or cover. There would be no maintenance of livestock waters. As these waters became inoperable, water availability could become a critical limiting factor for many wildlife species.

4. Threatened and Endangered Species

There would be no change to the bald eagle or the peregrine falcon habitat if the no grazing alternative was selected.

5. Livestock Management

Under the no grazing alternative there would be no grazing on the federal land in the area of Allotment 64060 or Allotment 64560. This would have an adverse economic impact to the livestock operation. Even though there are significant amounts of private and state leased lands within the allotments, due to the dispersal of the tracts, grazing management would be difficult and uneconomical for the permittee to have sustainable agricultural production. Requirements by the Taylor Grazing Act and under current regulations as stated in 43 CFR 4199.0-2 Objectives: to accelerate restoration and improvement of public rangelands to properly functioning conditions; to promote the orderly use, improvement and development of the public lands; to establish efficient and effective administration of grazing of public rangelands and to provide for the sustainability of the western livestock industry and communities that are dependent upon productive, healthy public rangelands would not be met.

6. Visual Resources

No change in the visual resources, scale, land-form, and color will occur with the no grazing alternative.

7. Water Quality

A slight improvement in surface water quality will be achieved with the no grazing alternative. This is anticipated because the removal of standing vegetation will not be occurring to the degree allowed in the proposed action. More standing vegetation will slow runoff during precipitation events which will reduce sediments into the water. Ground water will not be changed by the no grazing alternative.

8. Floodplains, Riparian/Wetlands

Impacts to the floodplains would be the same as the proposed action.

9. Air Quality

There would be no change to the air quality with the no grazing alternative.

10. Recreation, Caves and Karst.

Those recreationists who desire solitude and no livestock would be benefited from this alternative. Hunters may not benefit from this alternative if livestock waters are not maintained, which would affect hunting opportunities. This alternative would have no effect on caves or karst features.

11. Non-Native and Invasive Species:

There would be no change in the existing non-native/invasive species populations as established by grazing livestock under proper management. Discovery of new populations that may be established by other uses of the public lands may go unrecognized.

V. Public Land Health

Public Land (Rangeland) Health assessments were completed on the allotments during 2004. Based on the assessments and monitoring data a Determination was made that public land within these livestock grazing allotments is in conformance with the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management. A copy of these assessments can be accessed at www.nm.blm.gov/rfo/index.htm.

VI Cumulative Impacts

All of the allotments that have permits/leases with the BLM will undergo scoping and analysis in conformance with NEPA. Allotments#64060 and 64560 are surrounded by others that will undergo this process. If the proposed action is selected, there would be no change in the cumulative impacts since it does not vary from the current situation.

If the no livestock grazing alternative is selected, there would be little change in the cumulative impact as long as the surrounding allotments continue to be stocked at their current level. If the permitted numbers are reduced on the surrounding ranches as well, the economics of the surrounding communities and/or minority/low income populations would be negatively impacted.

The No Grazing alternative was considered, but not chosen in the Rangeland Reform Environmental Impact Statement (EIS) Record of Decision (ROD) (p. 28). The elimination of grazing in the Roswell Field Office Area was also considered but eliminated by the Roswell RMP/ROD (pp. ROD-2).

VII. Residual Impacts

The area has been grazed by livestock since the early part of the 1900's, if not longer. Recent vegetative monitoring studies have shown that grazing, at the current permitted numbers of animals, is sustainable. If the mitigation measures are enacted, then there would be no residual impacts to the proposed action.

VIII. Socio-Economic Impacts

A description of the economic, social and cultural conditions by geographic region within New Mexico can be found in 2000 New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing management Final EIS. The impacts of authorizing grazing for these allotments under the Proposed Alternatives on the economic, social and cultural conditions of southeast New Mexico would be positive. On a smaller scale, the impacts of authorizing grazing for these allotments under the Proposed Action on the economic, social and cultural conditions of Chaves and Lincoln County would be positive.

IX. Mitigating Measures

Vegetation monitoring studies will continue to be conducted and the permitted numbers of livestock will be adjusted if necessary. If new information surfaces that livestock grazing is negatively impacting other resources, action will be taken at that time to mitigate those impacts.

X BLM Team Members

Dan Baggao, John Spain, Irene Gonzales, Jerry Dutchover, Pat Flannery, Tim Kreager, Howard Parman, Helen Miller, Joseph Navarro, David Arthun, Bill Murry, Ernest Jaquez and Michael McGee.

XI. Persons and Agencies Consulted

Chaves County Public Land Use Advisory Committee
Royce Griggs, Authorized Representative for the Ford Secure Trust, allottee
New Mexico Department of Game & Fish
New Mexico Energy, Mineral and Natural Resources Department - Forestry and Resource Conservation Division
New Mexico Environment Department - Surface Water Quality Bureau
New Mexico State Land Office
U.S. Fish and Wildlife Service - Ecological Services
U.S. Fish and Wildlife Service– Fishery Resources Office

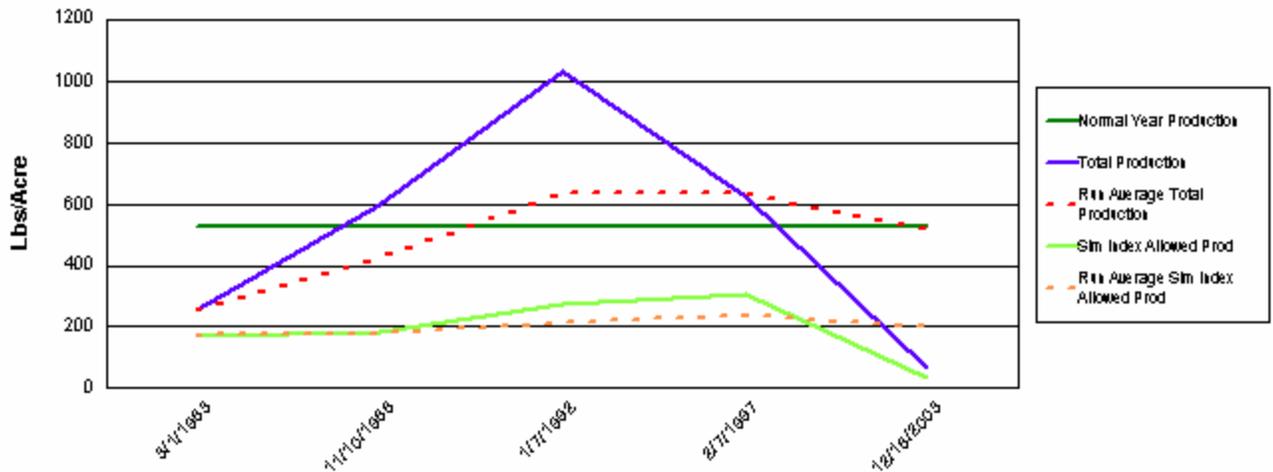
Production (lbs/ac) Data Trends

(Data Extracted From VMAP System)

| | | | | | | | |
|--------------------|----------------------|-------------------|-------------------------|-------------------|------------------------|---------------|--|
| VEGID: | 933 | | Date Printed: | | 6/26/2006 | | |
| Allot No. | Allotment | Ecosite ID | Ecosite Name | | Site Name | | |
| 64060 | HONDO CANYON | 042CY025NM | SHALLOW SD-3 | | 64060-EAST BORDER-F191 | | |
| Location: | T. 0110S | R. 0210E | Sec. 05 | QtrQt SESE | UTM-N | 3692965.29647 | |
| | CHAVES | County, NM | | | UTM-E | 513584.46831 | |
| Soil Sur No | Soil Map Unit | Soil Tax | Soil Association | | | | |
| NM666 | UA | UPTON | UPTON-ATOKA | | | | |

| Date | Range Cond. | Similarity Index | Normal Year Production | Total Production | Running Average Production | Sim Index Allowed Production | Running Average Sim Index Allowed Production |
|------------|-------------|------------------|------------------------|------------------|----------------------------|------------------------------|----------------------------------------------|
| 03/01/1983 | 49.62 | 32.76 | 525 | 257.00 | 257.00 | 172.00 | 172.00 |
| 11/10/1986 | 31.34 | 34.86 | 525 | 596.00 | 426.50 | 183.00 | 177.50 |
| 01/07/1992 | 47.00 | 51.81 | 525 | 1,036.00 | 629.67 | 272.00 | 209.00 |
| 02/07/1997 | 57.37 | 58.67 | 525 | 625.00 | 628.50 | 308.00 | 233.75 |
| 12/18/2003 | 30.87 | 14.52 | 525 | 64.73 | 515.75 | 36.29 | 194.26 |

Production Data For Study Site



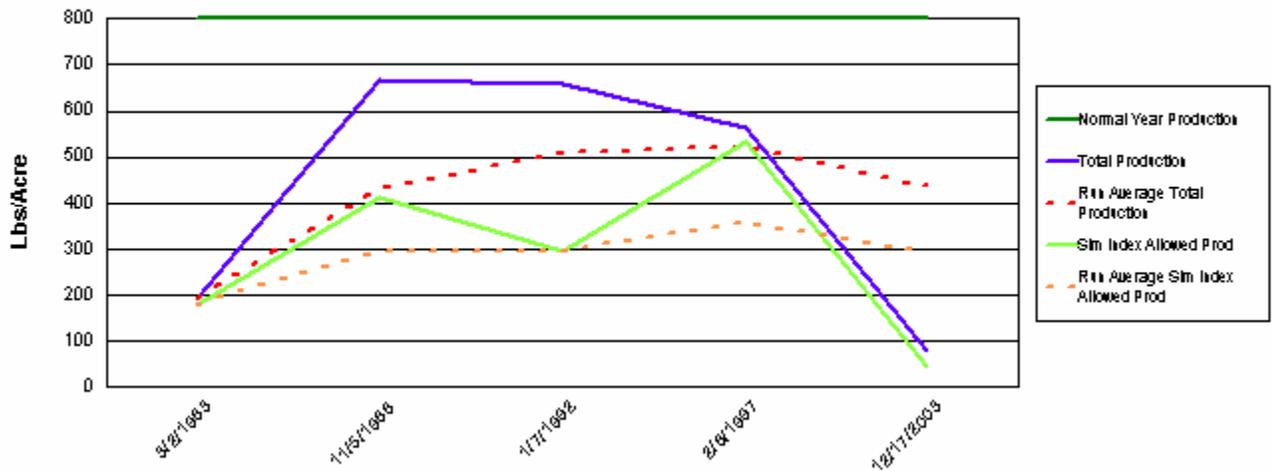
Production (lbs/ac) Data Trends

(Data Extracted From VMAP System)

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|--------------------|----------------------|-------------------|---------------------|-------------------|-------------------------|---------------|--|
| VEGID: | 934 | | Date Printed: | | 6/26/2006 | | |
| Allot No. | Allotment | Ecosite ID | Ecosite Name | | Site Name | | |
| 64060 | HONDO CANYON | 070DY152NM | SHALLOW CP-4 | | 64060-SO COLE-F192 | | |
| Location: | T. 0110S | R. 0210E | Sec. 23 | QtrQt NESW | UTM-N | 3689196.00000 | |
| | CHAVES | County, NM | | | UTM-E | 518220.96875 | |
| Soil Sur No | Soil Map Unit | | Soil Tax | | Soil Association | | |
| NM666 | TfD | | TENCEE | | TENCEE | | |

| Date | Range Cond. | Similarity Index | Normal Year Production | Total Production | Running Average Production | Sim Index Allowed Production | Running Average Sim Index Allowed Production |
|------------|-------------|------------------|------------------------|------------------|----------------------------|------------------------------|----------------------------------------------|
| 03/02/1983 | 49.63 | 22.25 | 800 | 193.00 | 193.00 | 178.00 | 178.00 |
| 11/05/1986 | 56.93 | 51.50 | 800 | 668.00 | 430.50 | 412.00 | 295.00 |
| 01/07/1992 | 42.00 | 37.13 | 800 | 657.00 | 506.00 | 297.00 | 295.67 |
| 02/06/1997 | 86.75 | 66.50 | 800 | 563.00 | 520.25 | 532.00 | 354.75 |
| 12/17/2003 | 33.63 | 10.60 | 800 | 76.96 | 431.59 | 42.40 | 292.28 |

Production Data For Study Site



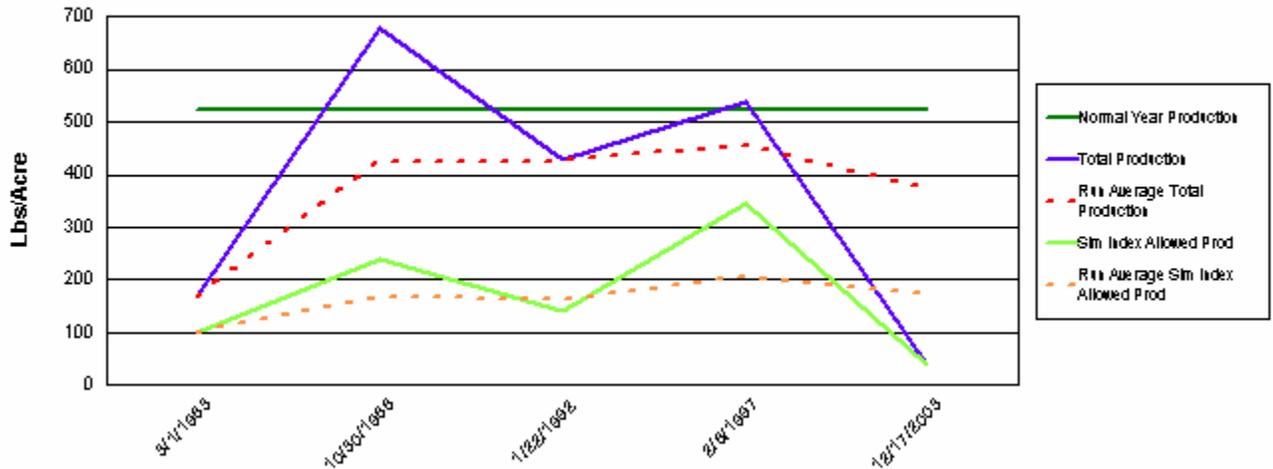
Production (lbs/ac) Data Trends

(Data Extracted From VMAP System)

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|--------------------|----------------------|-------------------|---------------------|-------------------------|------------------|---------------|
| VEGID: | 935 | | | | Date Printed: | 6/26/2006 |
| Allot No. | Allotment | Ecosite ID | Ecosite Name | | Site Name | |
| 64060 | HONDO CANYON | 042CY025NM | SHALLOW SD-3 | | 64060-HORSE-F193 | |
| Location: | T. 0110S | R. 0210E | Sec. 33 | QtrQt NWNE | UTM-N | 3686832.00000 |
| | CHAVES | County, NM | | | UTM-E | 515147.65625 |
| Soil Sur No | Soil Map Unit | Soil Tax | | Soil Association | | |
| NM666 | Tg | TENCEE | | TENCEE-UPTON | | |

| Date | Range Cond. | Similarity Index | Normal Year Production | Total Production | Running Average Production | Sim Index Allowed Production | Running Average Sim Index Allowed Production |
|------------|-------------|------------------|------------------------|------------------|----------------------------|------------------------------|----------------------------------------------|
| 03/01/1983 | 43.55 | 18.86 | 525 | 167.00 | 167.00 | 99.00 | 99.00 |
| 10/30/1986 | 38.18 | 45.52 | 525 | 679.00 | 423.00 | 239.00 | 169.00 |
| 01/22/1992 | 30.00 | 27.05 | 525 | 427.00 | 424.33 | 142.00 | 160.00 |
| 02/06/1997 | 65.45 | 65.90 | 525 | 540.00 | 453.25 | 346.00 | 206.50 |
| 12/17/2003 | 48.55 | 15.15 | 525 | 39.96 | 370.59 | 37.88 | 172.78 |

Production Data For Study Site



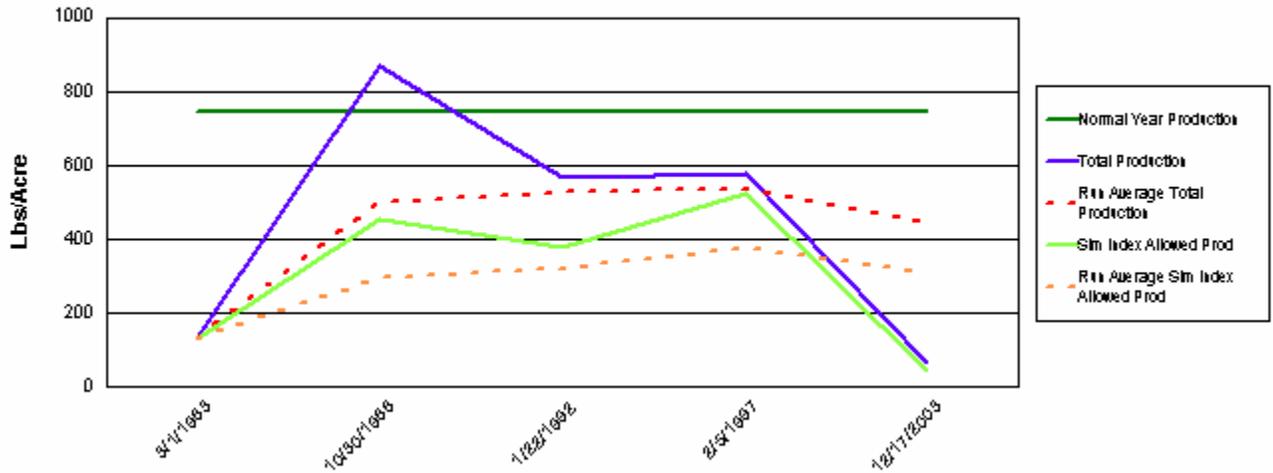
Production (lbs/ac) Data Trends

(Data Extracted From VMAP System)

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|--------------------|----------------------|-------------------|-------------------------|-------------------|
| VEGID: | 936 | | Date Printed: 6/26/2006 | |
| Allot No. | Allotment | Ecosite ID | Ecosite Name | Site Name |
| 64060 | HONDO CANYON | 070DY158NM | VERY SHALLOW CP-4 | 64060-VAT-F194 |
| Location: | T. 0110S | R. 0200E | Sec. 25 | QtrQt NESE |
| | UTM-N | | | 3687407.00000 |
| CHAVES | County, NM | | UTM-E | 510512.53125 |
| Soil Sur No | Soil Map Unit | Soil Tax | Soil Association | |
| NM666 | EcC | ECTOR | ECTOR-ROC | |

| Date | Range Cond. | Similarity Index | Normal Year Production | Total Production | Running Average Production | Sim Index Allowed Production | Running Average Sim Index Allowed Production |
|------------|-------------|------------------|------------------------|------------------|----------------------------|------------------------------|----------------------------------------------|
| 03/01/1983 | 79.17 | 17.33 | 750 | 130.00 | 130.00 | 130.00 | 130.00 |
| 10/30/1986 | 54.92 | 61.07 | 750 | 872.00 | 501.00 | 458.00 | 294.00 |
| 01/22/1992 | 58.00 | 50.53 | 750 | 568.00 | 523.33 | 379.00 | 322.33 |
| 02/05/1997 | 86.77 | 69.87 | 750 | 578.00 | 537.00 | 524.00 | 372.75 |
| 12/17/2003 | 39.66 | 15.12 | 750 | 67.01 | 443.00 | 45.35 | 307.27 |

Production Data For Study Site



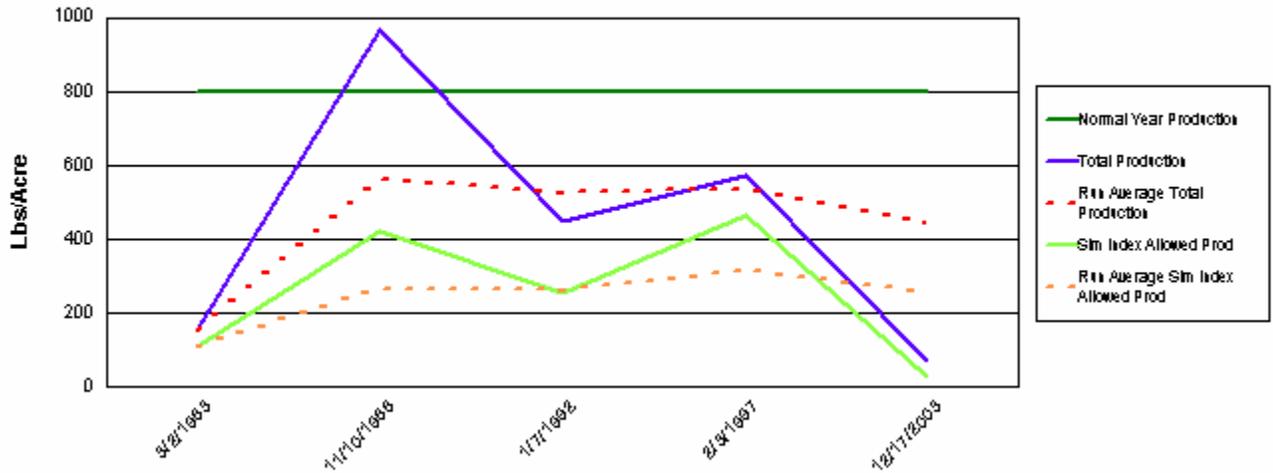
Production (lbs/ac) Data Trends

(Data Extracted From VMAP System)

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|--------------------|----------------------|-------------------|---------------------|-------------------|-------------------------|---------------|--|
| VEGID: | 937 | | Date Printed: | | 6/26/2006 | | |
| Allot No. | Allotment | Ecosite ID | Ecosite Name | | Site Name | | |
| 64060 | HONDO CANYON | 070DY152NM | SHALLOW CP-4 | | 64060-NO COLE-F195 | | |
| Location: | T. 0110S | R. 0210E | Sec. 14 | QtrQt NWSE | UTM-N | 3690671.75000 | |
| | CHAVES | County, NM | | | UTM-E | 518647.37500 | |
| Soil Sur No | Soil Map Unit | | Soil Tax | | Soil Association | | |
| NM666 | TfD | | TENCEE | | TENCEE | | |

| Date | Range Cond. | Similarity Index | Normal Year Production | Total Production | Running Average Production | Sim Index Allowed Production | Running Average Sim Index Allowed Production |
|------------|-------------|------------------|------------------------|------------------|----------------------------|------------------------------|----------------------------------------------|
| 03/02/1983 | 39.09 | 13.38 | 800 | 155.00 | 155.00 | 107.00 | 107.00 |
| 11/10/1986 | 45.51 | 52.75 | 800 | 971.00 | 563.00 | 422.00 | 264.50 |
| 01/07/1992 | 45.00 | 31.75 | 800 | 450.00 | 525.33 | 254.00 | 261.00 |
| 02/03/1997 | 73.08 | 58.63 | 800 | 574.00 | 537.50 | 469.00 | 313.00 |
| 12/17/2003 | 23.75 | 6.78 | 800 | 72.91 | 444.58 | 27.13 | 255.83 |

Production Data For Study Site



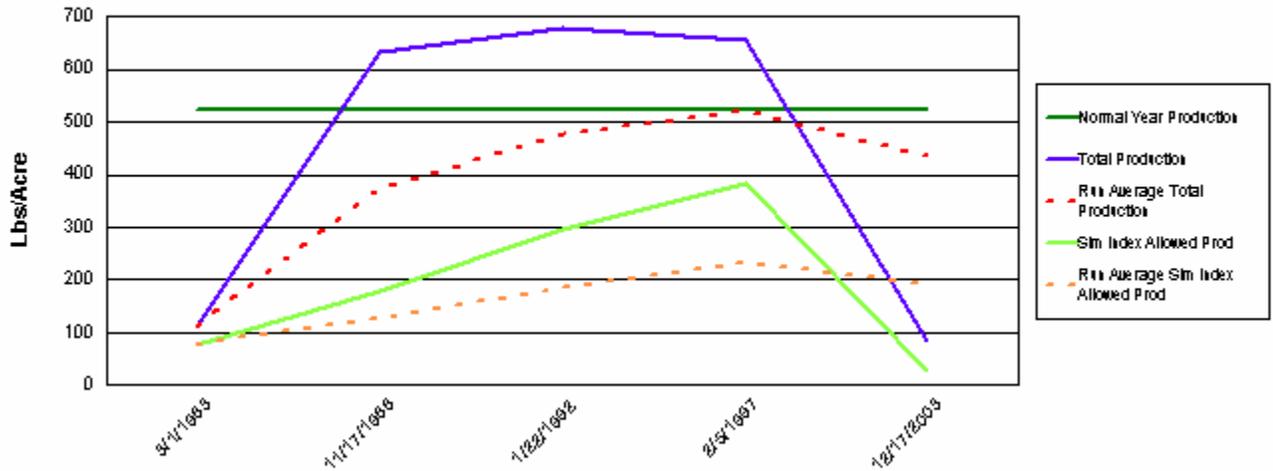
Production (lbs/ac) Data Trends

(Data Extracted From VMAP System)

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|--------------------|----------------------|-------------------|-------------------------|-------------------|------------------|---------------|--|
| VEGID: | 938 | | Date Printed: | | 6/26/2006 | | |
| Allot No. | Allotment | Ecosite ID | Ecosite Name | | Site Name | | |
| 64060 | HONDO CANYON | 042CY025NM | SHALLOW SD-3 | | 64060-3Z-F196 | | |
| Location: | T. 0110S | R. 0210E | Sec. 29 | QtrQt NWNE | UTM-N | 3688247.50000 | |
| CHAVES | County, NM | | | UTM-E | 513289.84375 | | |
| Soil Sur No | Soil Map Unit | Soil Tax | Soil Association | | | | |
| NM666 | Tg | TENCEE | TENCEE-UPTON | | | | |

| Date | Range Cond. | Similarity Index | Normal Year Production | Total Production | Running Average Production | Sim Index Allowed Production | Running Average Sim Index Allowed Production |
|------------|-------------|------------------|------------------------|------------------|----------------------------|------------------------------|----------------------------------------------|
| 03/01/1983 | 34.74 | 14.48 | 525 | 112.00 | 112.00 | 76.00 | 76.00 |
| 11/17/1986 | 30.40 | 33.90 | 525 | 632.00 | 372.00 | 178.00 | 127.00 |
| 01/22/1992 | 54.00 | 56.19 | 525 | 678.00 | 474.00 | 295.00 | 183.00 |
| 02/05/1997 | 67.72 | 72.95 | 525 | 656.00 | 519.50 | 383.00 | 233.00 |
| 12/17/2003 | 26.20 | 10.91 | 525 | 83.12 | 432.22 | 27.28 | 191.86 |

Production Data For Study Site



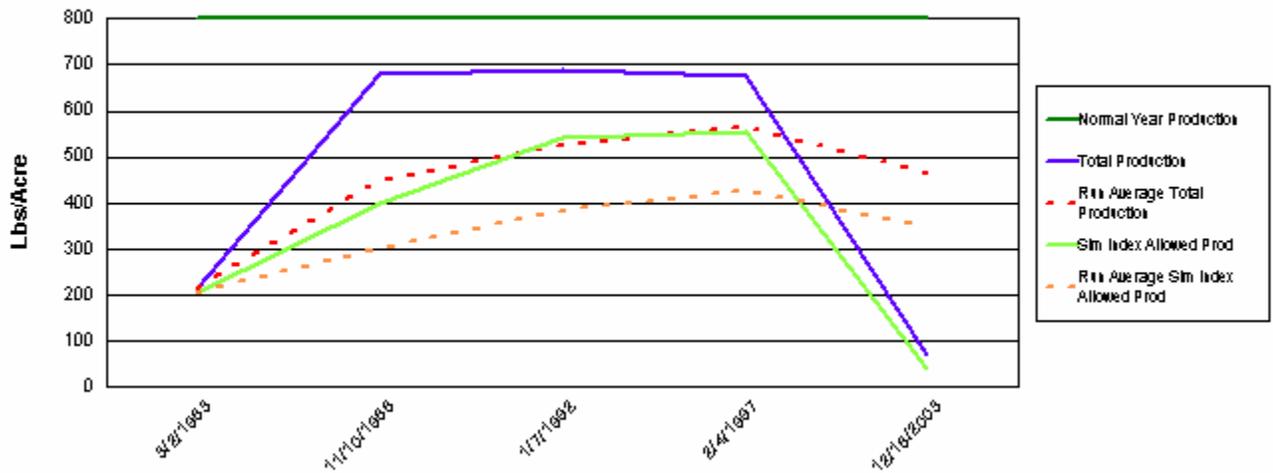
Production (lbs/ac) Data Trends

(Data Extracted From VMAP System)

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|--------------------|----------------------|-------------------|---------------------|-------------------------|--------------------|---------------|--|
| VEGID: | 939 | | Date Printed: | | 6/26/2006 | | |
| Allot No. | Allotment | Ecosite ID | Ecosite Name | | Site Name | | |
| 64060 | HONDO CANYON | 070DY152NM | SHALLOW CP-4 | | 64060-SCHOOLHOUSE- | | |
| Location: | T. 0110S | R. 0210E | Sec. 15 | QtrQt SWSE | UTM-N | 3690384.75000 | |
| | CHAVES | County, NM | | | UTM-E | 516777.84375 | |
| Soil Sur No | Soil Map Unit | Soil Tax | | Soil Association | | | |
| NM666 | TfD | TENCEE | | TENCEE | | | |

| Date | Range Cond. | Similarity Index | Normal Year Production | Total Production | Running Average Production | Sim Index Allowed Production | Running Average Sim Index Allowed Production |
|------------|-------------|------------------|------------------------|------------------|----------------------------|------------------------------|----------------------------------------------|
| 03/02/1983 | 66.86 | 25.63 | 800 | 211.00 | 211.00 | 205.00 | 205.00 |
| 11/10/1986 | 54.32 | 49.75 | 800 | 681.00 | 446.00 | 398.00 | 301.50 |
| 01/07/1992 | 72.00 | 67.63 | 800 | 687.00 | 526.33 | 541.00 | 381.33 |
| 02/04/1997 | 80.00 | 69.50 | 800 | 674.00 | 563.25 | 556.00 | 425.00 |
| 12/18/2003 | 31.78 | 10.44 | 800 | 69.11 | 464.42 | 41.75 | 348.35 |

Production Data For Study Site



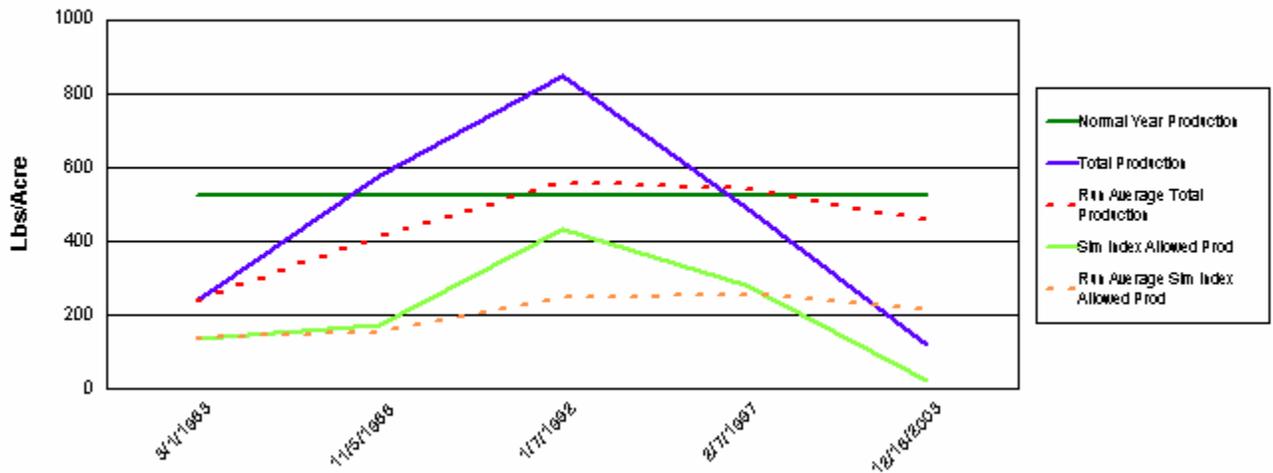
Production (lbs/ac) Data Trends

(Data Extracted From VMAP System)

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|--------------------|----------------------|-------------------|---------------------|-------------------|-------------------------|---------------|--|
| VEGID: | 940 | | Date Printed: | | 6/26/2006 | | |
| Allot No. | Allotment | Ecosite ID | Ecosite Name | | Site Name | | |
| 64060 | HONDO CANYON | 042CY025NM | SHALLOW SD-3 | | 64060-DIAMOND A-F198 | | |
| Location: | T. 0110S | R. 0210E | Sec. 07 | QtrQt NWSE | UTM-N | 3692140.52217 | |
| | CHAVES | County, NM | | | UTM-E | 511319.48474 | |
| Soil Sur No | Soil Map Unit | | Soil Tax | | Soil Association | | |
| NM666 | Tg | | TENCEE | | TENCEE-UPTON | | |

| Date | Range Cond. | Similarity Index | Normal Year Production | Total Production | Running Average Production | Sim Index Allowed Production | Running Average Sim Index Allowed Production |
|------------|-------------|------------------|------------------------|------------------|----------------------------|------------------------------|----------------------------------------------|
| 03/01/1983 | 36.94 | 25.52 | 525 | 239.00 | 239.00 | 134.00 | 134.00 |
| 11/05/1986 | 31.21 | 33.14 | 525 | 582.00 | 410.50 | 174.00 | 154.00 |
| 01/07/1992 | 61.00 | 82.29 | 525 | 848.00 | 556.33 | 432.00 | 246.67 |
| 02/07/1997 | 56.82 | 54.10 | 525 | 493.00 | 540.50 | 284.00 | 256.00 |
| 12/18/2003 | 17.10 | 9.85 | 525 | 117.91 | 455.98 | 24.63 | 209.73 |

Production Data For Study Site



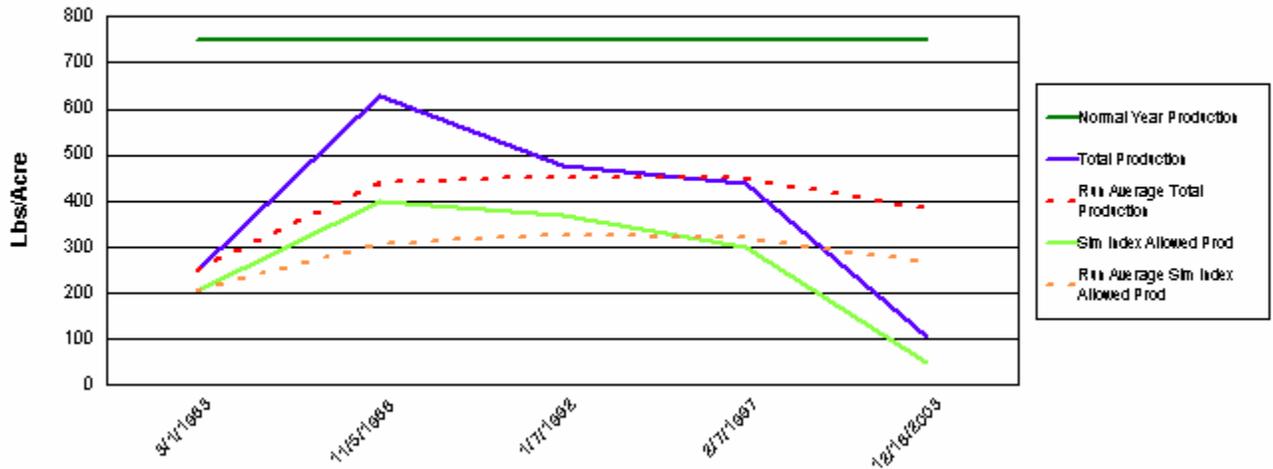
Production (lbs/ac) Data Trends

(Data Extracted From VMAP System)

| | | | | | | | |
|--------------------|----------------------|-------------------|---------------------|-------------------|-------------------------|---------------|--|
| VEGID: | 941 | | Date Printed: | | 6/26/2006 | | |
| Allot No. | Allotment | Ecosite ID | Ecosite Name | | Site Name | | |
| 64060 | HONDO CANYON | 070DY158NM | VERY SHALLOW CP-4 | | 64060-HONDO-F199 | | |
| Location: | T. 0110S | R. 0200E | Sec. 13 | QtrQt NWNW | UTM-N | 3691363.25018 | |
| | LINCOLN | County, NM | | | UTM-E | 509335.28096 | |
| Soil Sur No | Soil Map Unit | | Soil Tax | | Soil Association | | |
| NM632 | 016 | | ECTOR | | ECTOR-KIMBROUGH | | |

| Date | Range Cond. | Similarity Index | Normal Year Production | Total Production | Running Average Production | Sim Index Allowed Production | Running Average Sim Index Allowed Production |
|------------|-------------|------------------|------------------------|------------------|----------------------------|------------------------------|----------------------------------------------|
| 03/01/1983 | 70.61 | 27.07 | 750 | 247.00 | 247.00 | 203.00 | 203.00 |
| 11/05/1986 | 61.42 | 53.47 | 750 | 630.00 | 438.50 | 401.00 | 302.00 |
| 01/07/1992 | 72.00 | 49.33 | 750 | 479.00 | 452.00 | 370.00 | 324.67 |
| 02/07/1997 | 58.92 | 39.73 | 750 | 439.00 | 448.75 | 298.00 | 318.00 |
| 12/18/2003 | 28.00 | 16.22 | 750 | 103.61 | 379.72 | 48.66 | 264.13 |

Production Data For Study Site



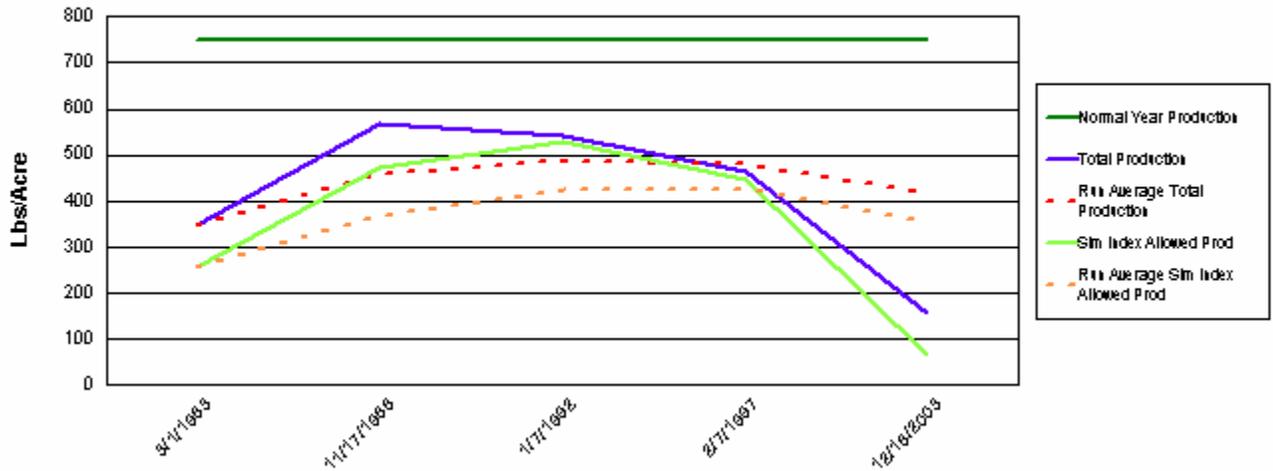
Production (lbs/ac) Data Trends

(Data Extracted From VMAP System)

| | | | | |
|------------------------------------|-------------------------------|------------------------------|-----------------------------------------|-----------------------------------------|
| VEGID: 942 | | | | Date Printed: 6/26/2006 |
| Allot No. 64060 | Allotment HONDO CANYON | Ecosite ID 070DY158NM | Ecosite Name VERY SHALLOW CP-4 | Site Name 64060-WEST BORDER-F200 |
| Location: T. 0110S R. 0200E | Sec. 01 | QtrQt SESE | UTM-N 3693295.02072 | |
| LINCOLN | County, NM | | UTM-E 510650.64927 | |
| Soil Sur No NM632 | Soil Map Unit 016 | Soil Tax ECTOR | Soil Association ECTOR-KIMBROUGH | |

| Date | Range Cond. | Similarity Index | Normal Year Production | Total Production | Running Average Production | Sim Index Allowed Production | Running Average Sim Index Allowed Production |
|------------|-------------|------------------|------------------------|------------------|----------------------------|------------------------------|----------------------------------------------|
| 03/01/1983 | 60.29 | 34.13 | 750 | 346.00 | 346.00 | 256.00 | 256.00 |
| 11/17/1986 | 76.98 | 62.80 | 750 | 566.00 | 456.00 | 471.00 | 363.50 |
| 01/07/1992 | 78.00 | 70.53 | 750 | 541.00 | 484.33 | 529.00 | 418.67 |
| 02/07/1997 | 87.24 | 59.47 | 750 | 463.00 | 479.00 | 446.00 | 425.50 |
| 12/18/2003 | 30.60 | 22.01 | 750 | 155.57 | 414.31 | 66.04 | 353.61 |

Production Data For Study Site



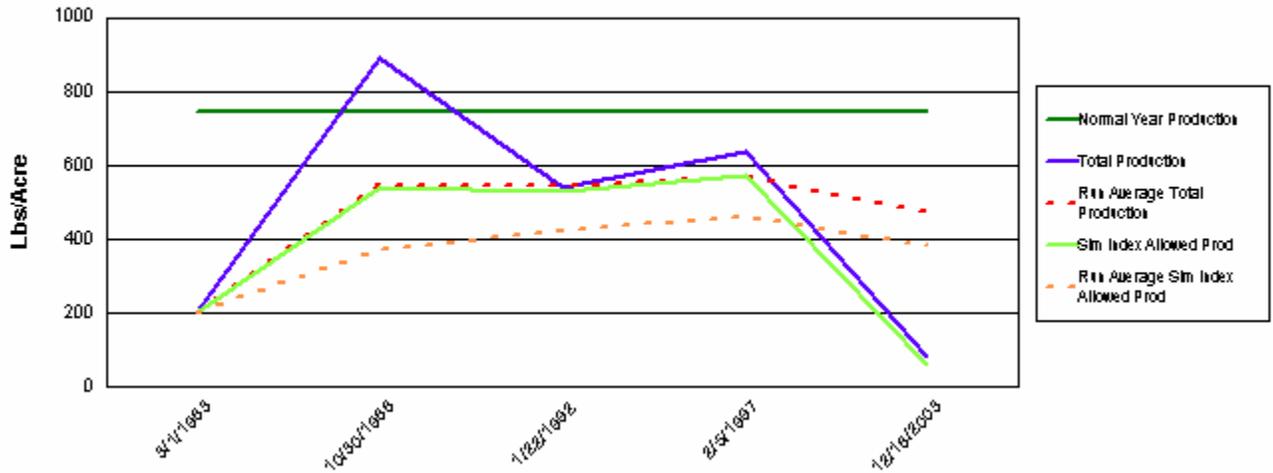
Production (lbs/ac) Data Trends

(Data Extracted From VMAP System)

| | | | | | |
|------------------------------------|-------------------------------|------------------------------|---------------------------------------|----------------------------------------|--|
| VEGID: 943 | | | | Date Printed: 6/26/2006 | |
| Allot No. 64060 | Allotment HONDO CANYON | Ecosite ID 070DY158NM | Ecosite Name VERY SHALLOW CP-4 | Site Name 64060-EAST BAR H-F201 | |
| Location: T. 0110S R. 0200E | Sec. 33 | QtrQt SWSW | UTM-N 3685266.75000 | | |
| LINCOLN | County, NM | | UTM-E 505382.59375 | | |
| Soil Sur No NM632 | Soil Map Unit 017 | Soil Tax ECTOR | Soil Association ECTOR-ROC | | |

| Date | Range Cond. | Similarity Index | Normal Year Production | Total Production | Running Average Production | Sim Index Allowed Production | Running Average Sim Index Allowed Production |
|------------|-------------|------------------|------------------------|------------------|----------------------------|------------------------------|----------------------------------------------|
| 03/01/1983 | 79.24 | 26.53 | 750 | 199.00 | 199.00 | 199.00 | 199.00 |
| 10/30/1986 | 64.43 | 72.53 | 750 | 893.00 | 546.00 | 544.00 | 371.50 |
| 01/22/1992 | 78.00 | 70.53 | 750 | 541.00 | 544.33 | 529.00 | 424.00 |
| 02/05/1997 | 87.53 | 76.80 | 750 | 638.00 | 567.75 | 576.00 | 462.00 |
| 12/18/2003 | 49.86 | 21.05 | 750 | 82.72 | 470.74 | 63.16 | 382.23 |

Production Data For Study Site



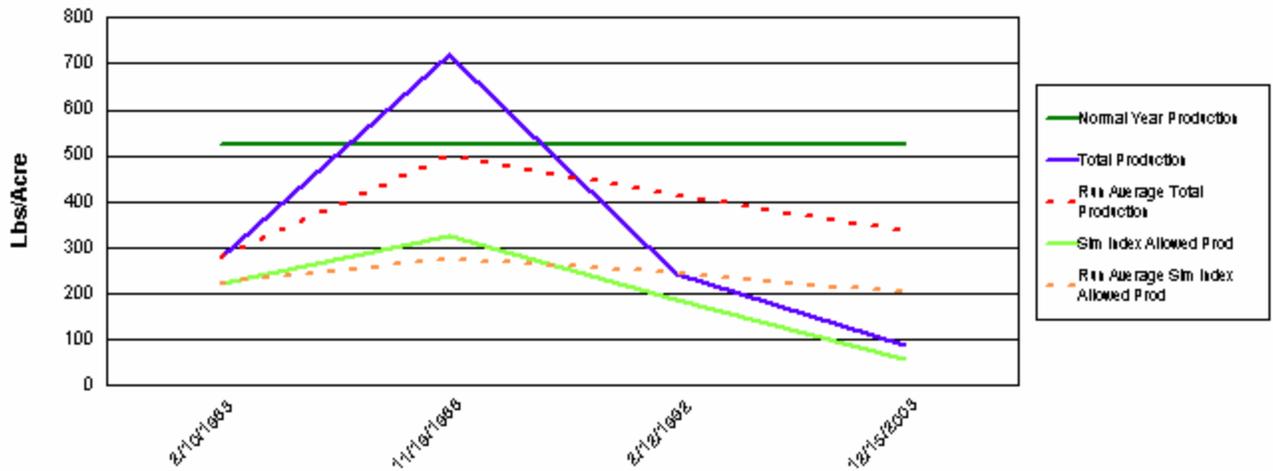
Production (lbs/ac) Data Trends

(Data Extracted From VMAP System)

| | | | | | | | |
|--------------------|----------------------|-------------------|---------------------|-------------------|-------------------------|---------------|--|
| VEGID: | 982 | | Date Printed: | | 6/26/2006 | | |
| Allot No. | Allotment | Ecosite ID | Ecosite Name | | Site Name | | |
| 64060 | HONDO CANYON | 042CY025NM | SHALLOW SD-3 | | 64060-S BUCHANAN-F240 | | |
| Location: | T. 0120S | R. 0210E | Sec. 26 | QtrQt NWSE | UTM-N | 3677877.72117 | |
| | CHAVES | County, NM | | | UTM-E | 516204.05452 | |
| Soil Sur No | Soil Map Unit | | Soil Tax | | Soil Association | | |
| NM666 | UA | | UPTON | | UPTON-ATOKA | | |

| Date | Range Cond. | Similarity Index | Normal Year Production | Total Production | Running Average Production | Sim Index Allowed Production | Running Average Sim Index Allowed Production |
|------------|-------------|------------------|------------------------|------------------|----------------------------|------------------------------|----------------------------------------------|
| 02/10/1983 | 64.01 | 42.10 | 525 | 276.00 | 276.00 | 221.00 | 221.00 |
| 11/19/1986 | 56.28 | 61.90 | 525 | 720.00 | 498.00 | 325.00 | 273.00 |
| 02/12/1992 | 51.00 | 35.62 | 525 | 245.00 | 413.67 | 187.00 | 244.33 |
| 12/15/2003 | 35.87 | 23.62 | 525 | 88.29 | 332.32 | 59.04 | 198.01 |

Production Data For Study Site



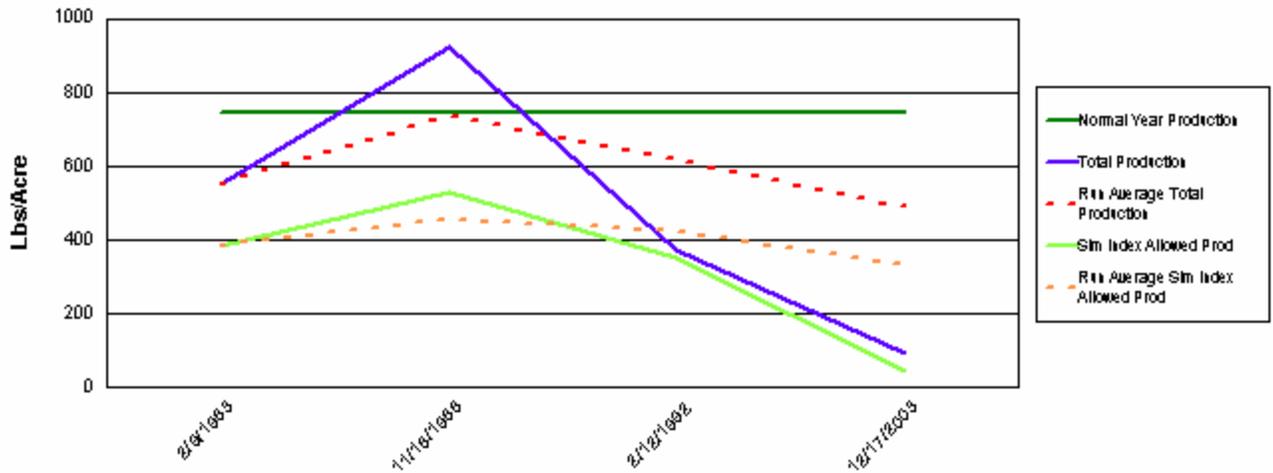
Production (lbs/ac) Data Trends

(Data Extracted From VMAP System)

| | | | | | |
|------------------------------------|-------------------------------|------------------------------|---------------------------------------|-------------------------------------|--|
| VEGID: 983 | | | | Date Printed: 6/26/2006 | |
| Allot No. 64060 | Allotment HONDO CANYON | Ecosite ID 070DY158NM | Ecosite Name VERY SHALLOW CP-4 | Site Name 64060-W BALDY-F241 | |
| Location: T. 0120S R. 0210E | Sec. 09 | QtrQt NESW | UTM-N 3682919.16734 | | |
| CHAVES | County, NM | | UTM-E 512817.54338 | | |
| Soil Sur No NM666 | Soil Map Unit EcC | Soil Tax ECTOR | Soil Association ECTOR-ROC | | |

| Date | Range Cond. | Similarity Index | Normal Year Production | Total Production | Running Average Production | Sim Index Allowed Production | Running Average Sim Index Allowed Production |
|------------|-------------|------------------|------------------------|------------------|----------------------------|------------------------------|----------------------------------------------|
| 02/09/1983 | 62.27 | 51.07 | 750 | 551.00 | 551.00 | 383.00 | 383.00 |
| 11/18/1986 | 62.56 | 70.67 | 750 | 927.00 | 739.00 | 530.00 | 456.50 |
| 02/12/1992 | 71.00 | 47.20 | 750 | 375.00 | 617.67 | 354.00 | 422.33 |
| 12/17/2003 | 37.99 | 15.73 | 750 | 95.98 | 487.25 | 47.20 | 328.55 |

Production Data For Study Site



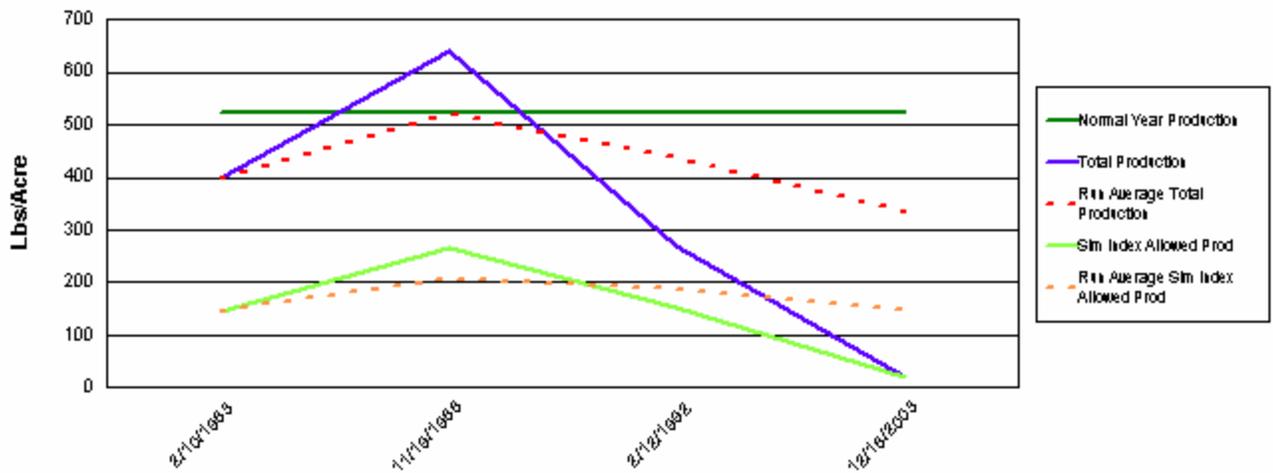
Production (lbs/ac) Data Trends

(Data Extracted From VMAP System)

| | | | | |
|--------------------|----------------------|-------------------|-------------------------|--------------------|
| VEGID: | 984 | | Date Printed: 6/26/2006 | |
| Allot No. | Allotment | Ecosite ID | Ecosite Name | Site Name |
| 64060 | HONDO CANYON | 042CY025NM | SHALLOW SD-3 | 64060-E BURNS-F242 |
| Location: | T. 0120S | R. 0220E | Sec. 19 | QtrQt SWSE |
| | UTM-N | | | 3678807.91809 |
| CHAVES | County, NM | | UTM-E | 522075.03312 |
| Soil Sur No | Soil Map Unit | Soil Tax | Soil Association | |
| NM666 | Lt | LOZIER | LOZIER-TENCEE | |

| Date | Range Cond. | Similarity Index | Normal Year Production | Total Production | Running Average Production | Sim Index Allowed Production | Running Average Sim Index Allowed Production |
|------------|-------------|------------------|------------------------|------------------|----------------------------|------------------------------|----------------------------------------------|
| 02/10/1983 | 31.00 | 27.24 | 525 | 400.00 | 400.00 | 143.00 | 143.00 |
| 11/19/1986 | 44.55 | 50.86 | 525 | 641.00 | 520.50 | 267.00 | 205.00 |
| 02/12/1992 | 43.00 | 28.76 | 525 | 271.00 | 437.33 | 151.00 | 187.00 |
| 12/16/2003 | 46.95 | 7.43 | 525 | 18.57 | 332.64 | 18.57 | 144.89 |

Production Data For Study Site



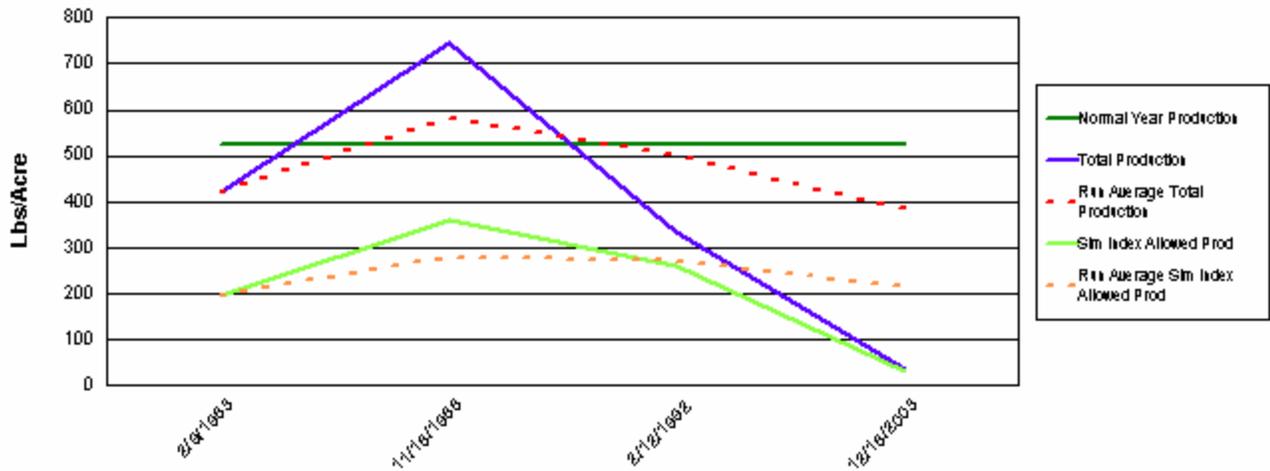
Production (lbs/ac) Data Trends

(Data Extracted From VMAP System)

| | | | | | | | |
|--------------------|----------------------|-------------------|---------------------|-------------------|-------------------------|---------------|--|
| VEGID: | 985 | | Date Printed: | | 6/26/2006 | | |
| Allot No. | Allotment | Ecosite ID | Ecosite Name | | Site Name | | |
| 64060 | HONDO CANYON | 042CY025NM | SHALLOW SD-3 | | 64060-N BUCHANAN-F243 | | |
| Location: | T. 0120S | R. 0210E | Sec. 14 | QtrQt NWSW | UTM-N | 3681123.34026 | |
| | CHAVES | County, NM | | | UTM-E | 515472.52879 | |
| Soil Sur No | Soil Map Unit | | Soil Tax | | Soil Association | | |
| NM666 | Lt | | LOZIER | | LOZIER-TENCEE | | |

| Date | Range Cond. | Similarity Index | Normal Year Production | Total Production | Running Average Production | Sim Index Allowed Production | Running Average Sim Index Allowed Production |
|------------|-------------|------------------|------------------------|------------------|----------------------------|------------------------------|----------------------------------------------|
| 02/09/1983 | 42.07 | 36.95 | 525 | 422.00 | 422.00 | 194.00 | 194.00 |
| 11/18/1986 | 52.17 | 68.19 | 525 | 743.00 | 582.50 | 358.00 | 276.00 |
| 02/12/1992 | 61.00 | 49.33 | 525 | 333.00 | 499.33 | 259.00 | 270.33 |
| 12/16/2003 | 43.33 | 13.32 | 525 | 37.54 | 383.89 | 33.31 | 211.08 |

Production Data For Study Site



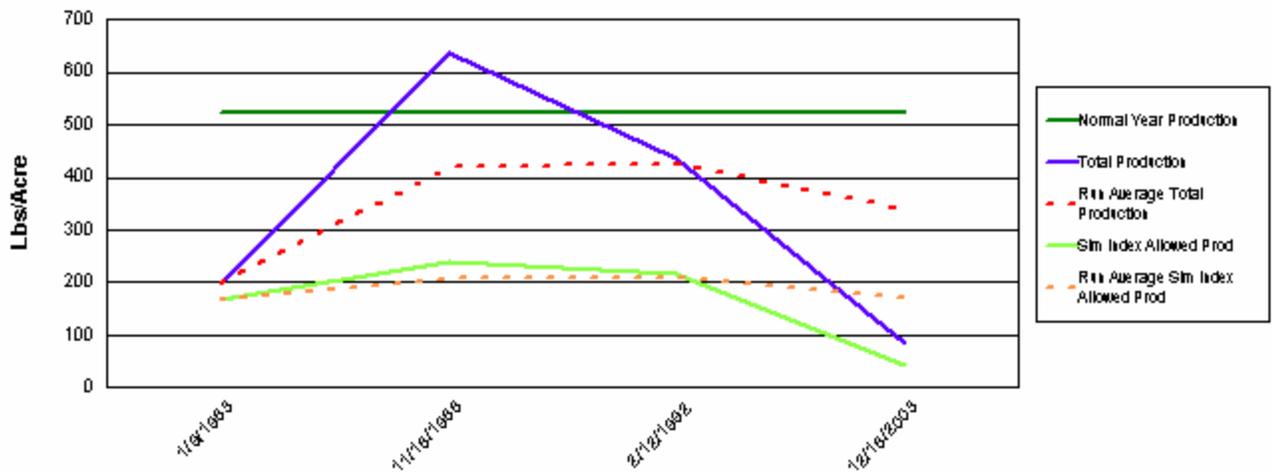
Production (lbs/ac) Data Trends

(Data Extracted From VMAP System)

| | | | | | |
|------------------------------------|-------------------------------|------------------------------|---------------------------------------|---------------------------------------|--|
| VEGID: 986 | | | | Date Printed: 6/26/2006 | |
| Allot No. 64060 | Allotment HONDO CANYON | Ecosite ID 042CY025NM | Ecosite Name SHALLOW SD-3 | Site Name 64060-LONGHOUSE-F244 | |
| Location: T. 0120S R. 0210E | Sec. 11 | QtrQt NWSW | UTM-N 3682718.73168 | | |
| CHAVES | County, NM | | UTM-E 515512.18683 | | |
| Soil Sur No NM666 | Soil Map Unit Lt | Soil Tax LOZIER | Soil Association LOZIER-TENCEE | | |

| Date | Range Cond. | Similarity Index | Normal Year Production | Total Production | Running Average Production | Sim Index Allowed Production | Running Average Sim Index Allowed Production |
|------------|-------------|------------------|------------------------|------------------|----------------------------|------------------------------|----------------------------------------------|
| 01/09/1983 | 55.22 | 31.81 | 525 | 196.00 | 196.00 | 167.00 | 167.00 |
| 11/18/1986 | 44.16 | 45.90 | 525 | 637.00 | 416.50 | 241.00 | 204.00 |
| 02/12/1992 | 43.00 | 40.95 | 525 | 437.00 | 423.33 | 215.00 | 207.67 |
| 12/16/2003 | 32.35 | 17.12 | 525 | 83.86 | 338.47 | 42.79 | 166.45 |

Production Data For Study Site



Traditional Range Condition and Similarity Index Data

VEGID: 933

64060 HONDO CANYON

64060-EAST BORDER-F191

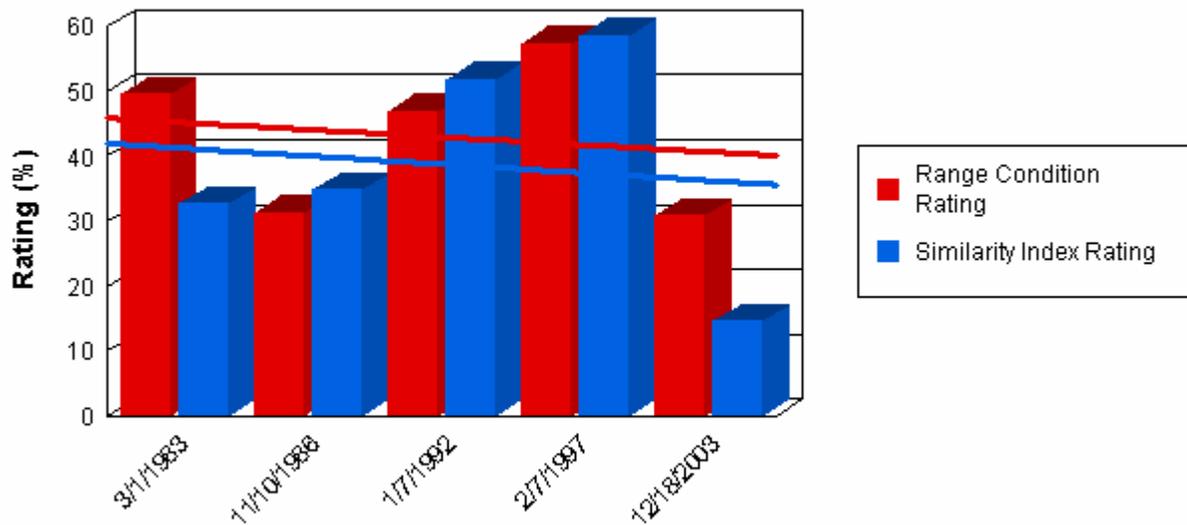
SHALLOW SD-3

042CY025NM

| Date | Range Cond. | Similarity Index | Total Production | Normal Year Production |
|------------|-------------|------------------|------------------|------------------------|
| 03/01/1983 | 49.62 | 32.76 | 257.00 | 525 |
| 11/10/1986 | 31.34 | 34.86 | 596.00 | 525 |
| 01/07/1992 | 47.00 | 51.81 | 1,036.00 | 525 |
| 02/07/1997 | 57.37 | 58.67 | 625.00 | 525 |
| 12/18/2003 | 30.87 | 14.52 | 64.73 | 525 |

Traditional Range Condition vs Similarity Index

With Trendlines



Traditional Range Condition and Similarity Index Data

VEGID: 934

64060 HONDO CANYON

64060-SO COLE-F192

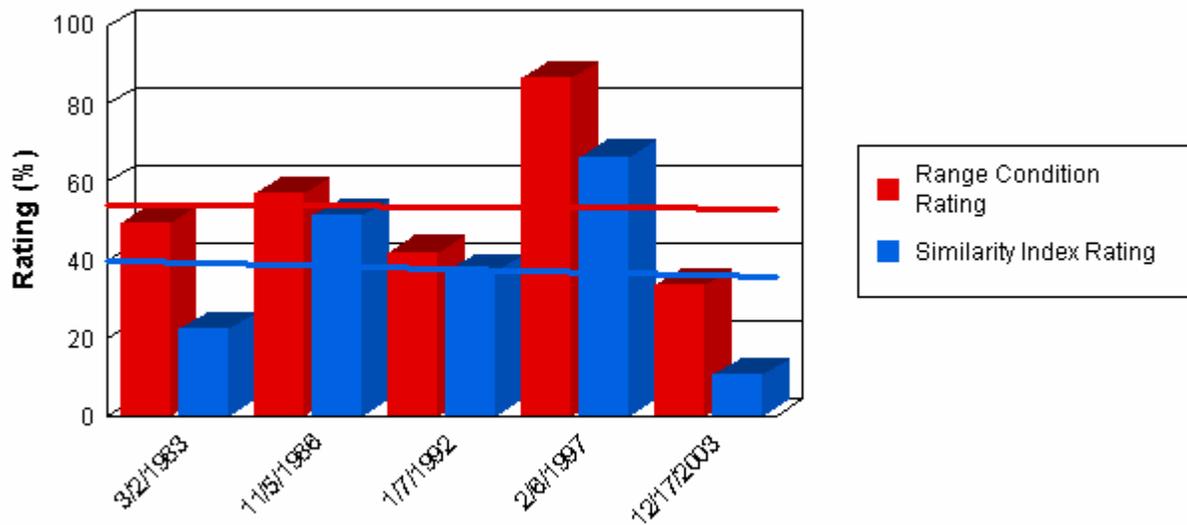
SHALLOW CP-4

070DY152NM

| Date | Range Cond. | Similarity Index | Total Production | Normal Year Production |
|------------|-------------|------------------|------------------|------------------------|
| 03/02/1983 | 49.63 | 22.25 | 193.00 | 800 |
| 11/05/1986 | 56.93 | 51.50 | 668.00 | 800 |
| 01/07/1992 | 42.00 | 37.13 | 657.00 | 800 |
| 02/06/1997 | 86.75 | 66.50 | 563.00 | 800 |
| 12/17/2003 | 33.63 | 10.60 | 76.96 | 800 |

Traditional Range Condition vs Similarity Index

With Trendlines



Traditional Range Condition and Similarity Index Data

VEGID: 935

64060 HONDO CANYON

64060-HORSE-F193

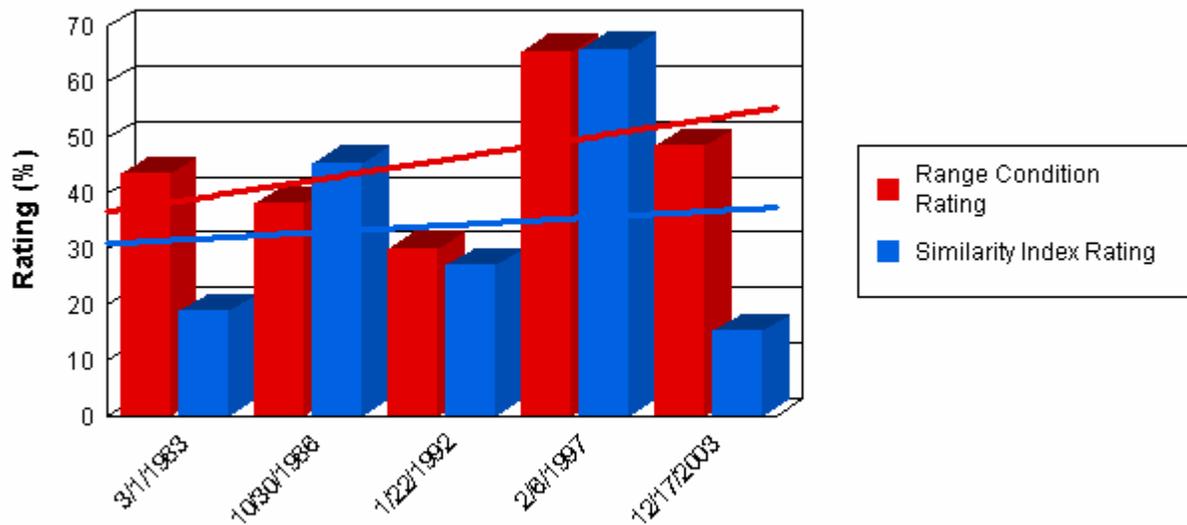
SHALLOW SD-3

042CY025NM

| Date | Range Cond. | Similarity Index | Total Production | Normal Year Production |
|------------|-------------|------------------|------------------|------------------------|
| 03/01/1983 | 43.55 | 18.86 | 167.00 | 525 |
| 10/30/1986 | 38.18 | 45.52 | 679.00 | 525 |
| 01/22/1992 | 30.00 | 27.05 | 427.00 | 525 |
| 02/06/1997 | 65.45 | 65.90 | 540.00 | 525 |
| 12/17/2003 | 48.55 | 15.15 | 39.96 | 525 |

Traditional Range Condition vs Similarity Index

With Trendlines



Traditional Range Condition and Similarity Index Data

VEGID: 936

64060 HONDO CANYON

64060-VAT-F194

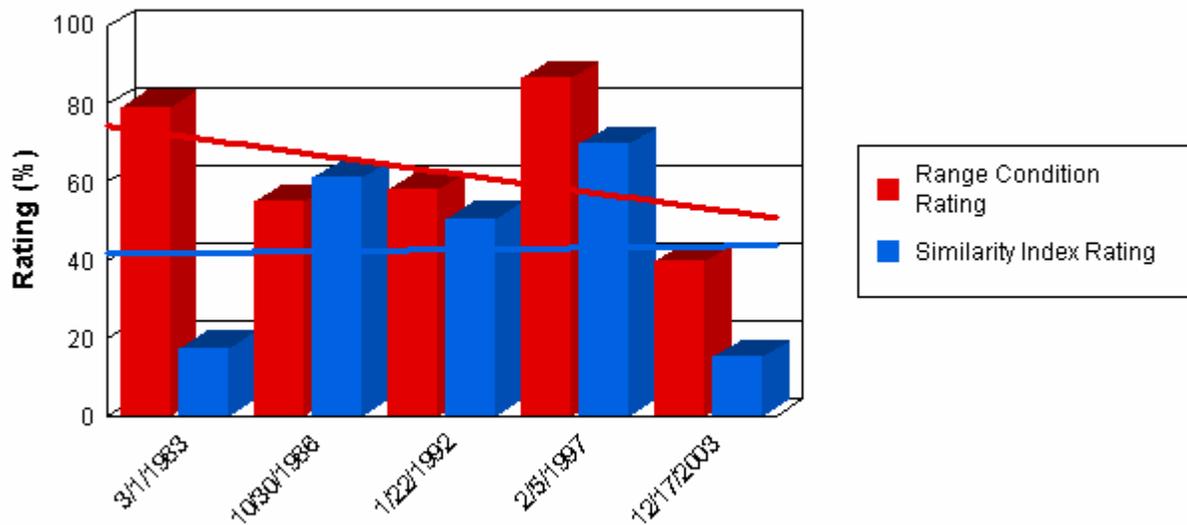
VERY SHALLOW CP-4

070DY158NM

| Date | Range Cond. | Similarity Index | Total Production | Normal Year Production |
|------------|-------------|------------------|------------------|------------------------|
| 03/01/1983 | 79.17 | 17.33 | 130.00 | 750 |
| 10/30/1986 | 54.92 | 61.07 | 872.00 | 750 |
| 01/22/1992 | 58.00 | 50.53 | 568.00 | 750 |
| 02/05/1997 | 86.77 | 69.87 | 578.00 | 750 |
| 12/17/2003 | 39.66 | 15.12 | 67.01 | 750 |

Traditional Range Condition vs Similarity Index

With Trendlines



Traditional Range Condition and Similarity Index Data

VEGID: 937

64060 HONDO CANYON

64060-NO COLE-F195

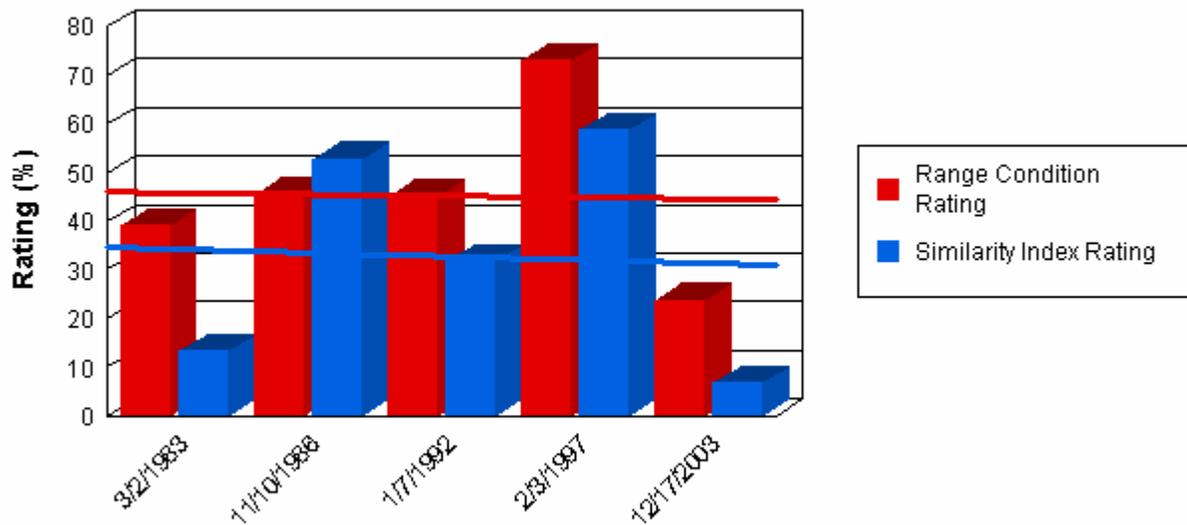
SHALLOW CP-4

070DY152NM

| Date | Range Cond. | Similarity Index | Total Production | Normal Year Production |
|------------|-------------|------------------|------------------|------------------------|
| 03/02/1983 | 39.09 | 13.38 | 155.00 | 800 |
| 11/10/1986 | 45.51 | 52.75 | 971.00 | 800 |
| 01/07/1992 | 45.00 | 31.75 | 450.00 | 800 |
| 02/03/1997 | 73.08 | 58.63 | 574.00 | 800 |
| 12/17/2003 | 23.75 | 6.78 | 72.91 | 800 |

Traditional Range Condition vs Similarity Index

With Trendlines



Traditional Range Condition and Similarity Index Data

VEGID: 938

64060 HONDO CANYON

64060-3Z-F196

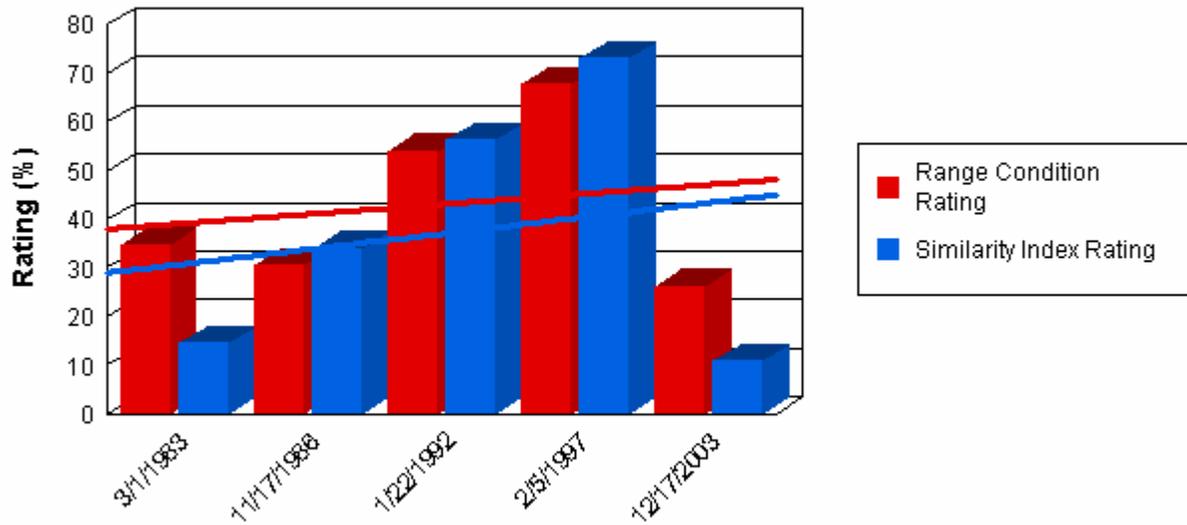
SHALLOW SD-3

042CY025NM

| Date | Range Cond. | Similarity Index | Total Production | Normal Year Production |
|------------|-------------|------------------|------------------|------------------------|
| 03/01/1983 | 34.74 | 14.48 | 112.00 | 525 |
| 11/17/1986 | 30.40 | 33.90 | 632.00 | 525 |
| 01/22/1992 | 54.00 | 56.19 | 678.00 | 525 |
| 02/05/1997 | 67.72 | 72.95 | 656.00 | 525 |
| 12/17/2003 | 26.20 | 10.91 | 83.12 | 525 |

Traditional Range Condition vs Similarity Index

With Trendlines



Traditional Range Condition and Similarity Index Data

VEGID: 939

64060 HONDO CANYON

64060-SCHOOLHOUSE-

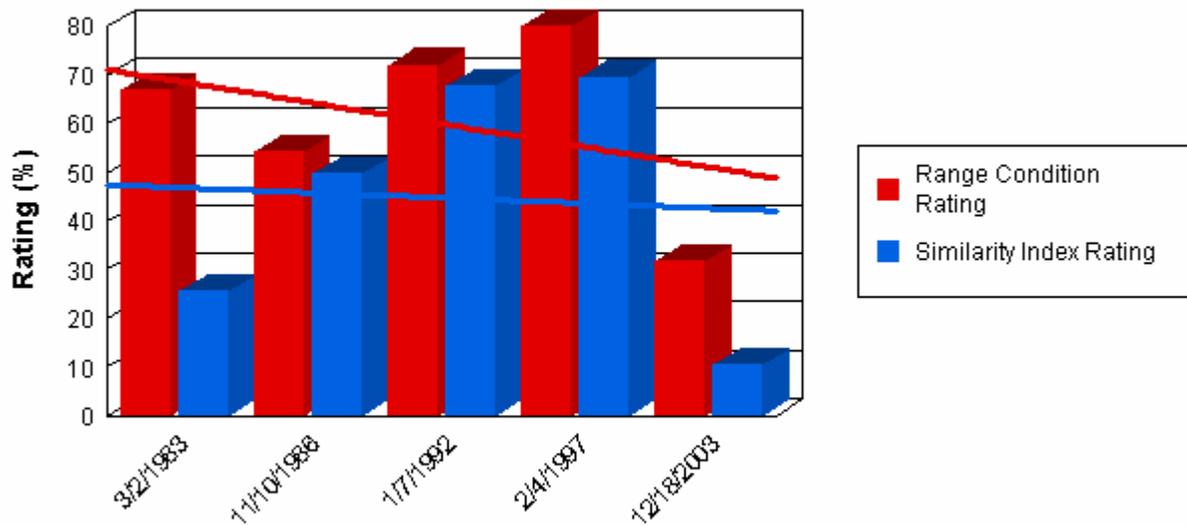
SHALLOW CP-4

070DY152NM

| Date | Range Cond. | Similarity Index | Total Production | Normal Year Production |
|------------|-------------|------------------|------------------|------------------------|
| 03/02/1983 | 66.86 | 25.63 | 211.00 | 800 |
| 11/10/1986 | 54.32 | 49.75 | 681.00 | 800 |
| 01/07/1992 | 72.00 | 67.63 | 687.00 | 800 |
| 02/04/1997 | 80.00 | 69.50 | 674.00 | 800 |
| 12/18/2003 | 31.78 | 10.44 | 69.11 | 800 |

Traditional Range Condition vs Similarity Index

With Trendlines



Traditional Range Condition and Similarity Index Data

VEGID: 940

64060 HONDO CANYON

64060-DIAMOND A-F198

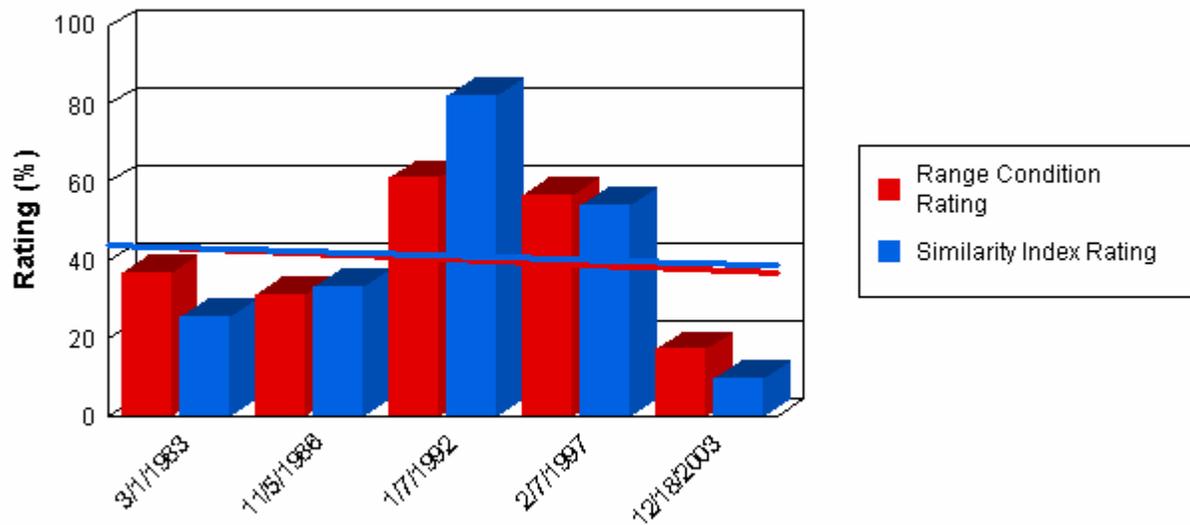
SHALLOW SD-3

042CY025NM

| Date | Range Cond. | Similarity Index | Total Production | Normal Year Production |
|------------|-------------|------------------|------------------|------------------------|
| 03/01/1983 | 36.94 | 25.52 | 239.00 | 525 |
| 11/05/1986 | 31.21 | 33.14 | 582.00 | 525 |
| 01/07/1992 | 61.00 | 82.29 | 848.00 | 525 |
| 02/07/1997 | 56.82 | 54.10 | 493.00 | 525 |
| 12/18/2003 | 17.10 | 9.85 | 117.91 | 525 |

Traditional Range Condition vs Similarity Index

With Trendlines



Traditional Range Condition and Similarity Index Data

VEGID: 941

64060 HONDO CANYON

64060-HONDO-F199

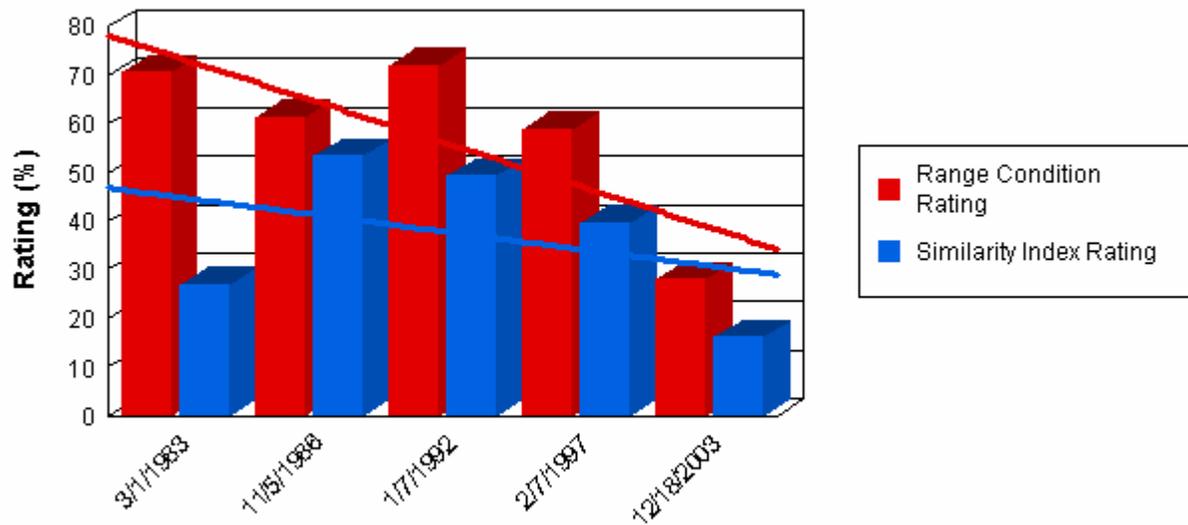
VERY SHALLOW CP-4

070DY158NM

| Date | Range Cond. | Similarity Index | Total Production | Normal Year Production |
|------------|-------------|------------------|------------------|------------------------|
| 03/01/1983 | 70.61 | 27.07 | 247.00 | 750 |
| 11/05/1986 | 61.42 | 53.47 | 630.00 | 750 |
| 01/07/1992 | 72.00 | 49.33 | 479.00 | 750 |
| 02/07/1997 | 58.92 | 39.73 | 439.00 | 750 |
| 12/18/2003 | 28.00 | 16.22 | 103.61 | 750 |

Traditional Range Condition vs Similarity Index

With Trendlines



Traditional Range Condition and Similarity Index Data

VEGID: 942

64060 HONDO CANYON

64060-WEST BORDER-F200

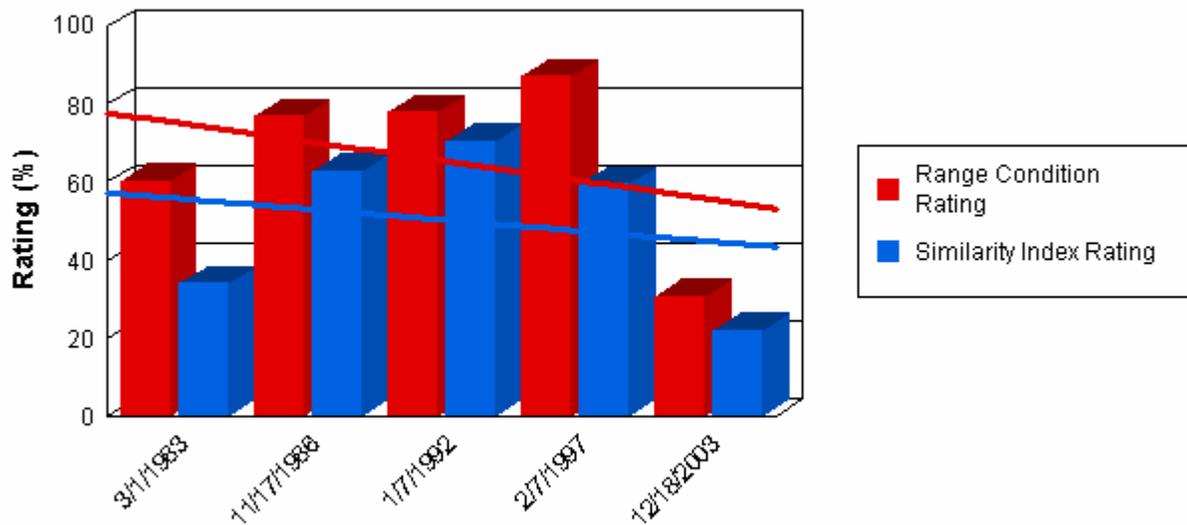
VERY SHALLOW CP-4

070DY158NM

| Date | Range Cond. | Similarity Index | Total Production | Normal Year Production |
|------------|-------------|------------------|------------------|------------------------|
| 03/01/1983 | 60.29 | 34.13 | 346.00 | 750 |
| 11/17/1986 | 76.98 | 62.80 | 566.00 | 750 |
| 01/07/1992 | 78.00 | 70.53 | 541.00 | 750 |
| 02/07/1997 | 87.24 | 59.47 | 463.00 | 750 |
| 12/18/2003 | 30.60 | 22.01 | 155.57 | 750 |

Traditional Range Condition vs Similarity Index

With Trendlines



Traditional Range Condition and Similarity Index Data

VEGID: 943

64060 HONDO CANYON

64060-EAST BAR H-F201

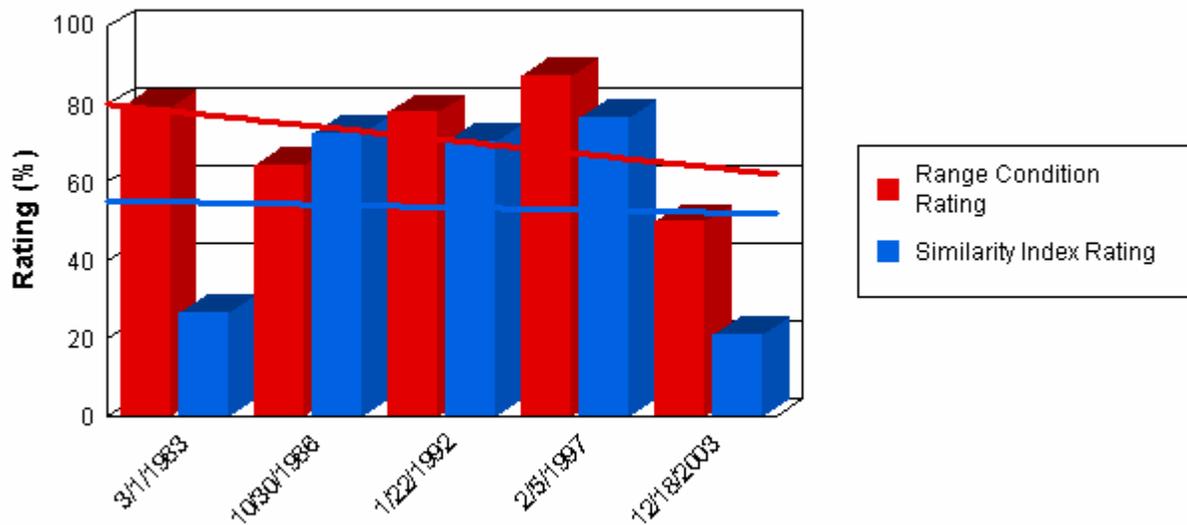
VERY SHALLOW CP-4

070DY158NM

| Date | Range Cond. | Similarity Index | Total Production | Normal Year Production |
|------------|-------------|------------------|------------------|------------------------|
| 03/01/1983 | 79.24 | 26.53 | 199.00 | 750 |
| 10/30/1986 | 64.43 | 72.53 | 893.00 | 750 |
| 01/22/1992 | 78.00 | 70.53 | 541.00 | 750 |
| 02/05/1997 | 87.53 | 76.80 | 638.00 | 750 |
| 12/18/2003 | 49.86 | 21.05 | 82.72 | 750 |

Traditional Range Condition vs Similarity Index

With Trendlines



Traditional Range Condition and Similarity Index Data

VEGID: 982

64060 HONDO CANYON

64060-S BUCHANAN-F240

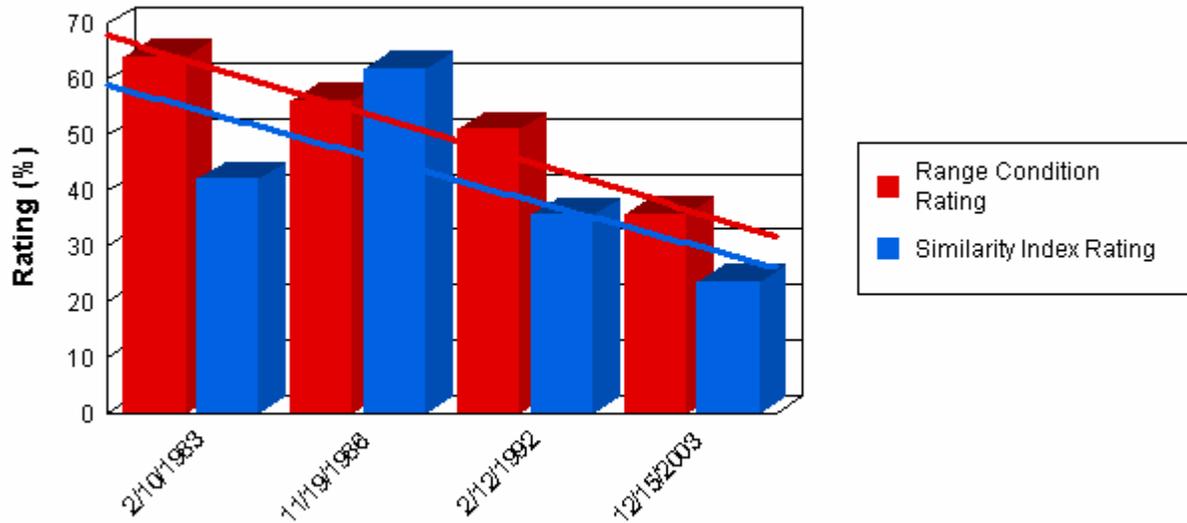
SHALLOW SD-3

042CY025NM

| Date | Range Cond. | Similarity Index | Total Production | Normal Year Production |
|------------|-------------|------------------|------------------|------------------------|
| 02/10/1983 | 64.01 | 42.10 | 276.00 | 525 |
| 11/19/1986 | 56.28 | 61.90 | 720.00 | 525 |
| 02/12/1992 | 51.00 | 35.62 | 245.00 | 525 |
| 12/15/2003 | 35.87 | 23.62 | 88.29 | 525 |

Traditional Range Condition vs Similarity Index

With Trendlines



Traditional Range Condition and Similarity Index Data

VEGID: 983

64060 HONDO CANYON

64060-W BALDY-F241

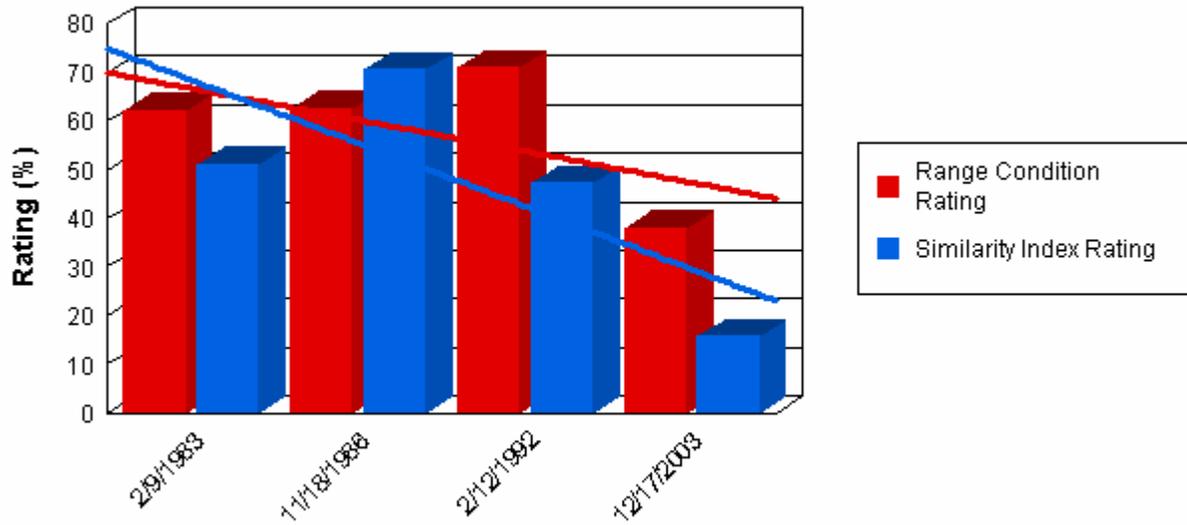
VERY SHALLOW CP-4

070DY158NM

| Date | Range Cond. | Similarity Index | Total Production | Normal Year Production |
|------------|-------------|------------------|------------------|------------------------|
| 02/09/1983 | 62.27 | 51.07 | 551.00 | 750 |
| 11/18/1986 | 62.56 | 70.67 | 927.00 | 750 |
| 02/12/1992 | 71.00 | 47.20 | 375.00 | 750 |
| 12/17/2003 | 37.99 | 15.73 | 95.98 | 750 |

Traditional Range Condition vs Similarity Index

With Trendlines



Traditional Range Condition and Similarity Index Data

VEGID: 984

64060 HONDO CANYON

64060-E BURNS-F242

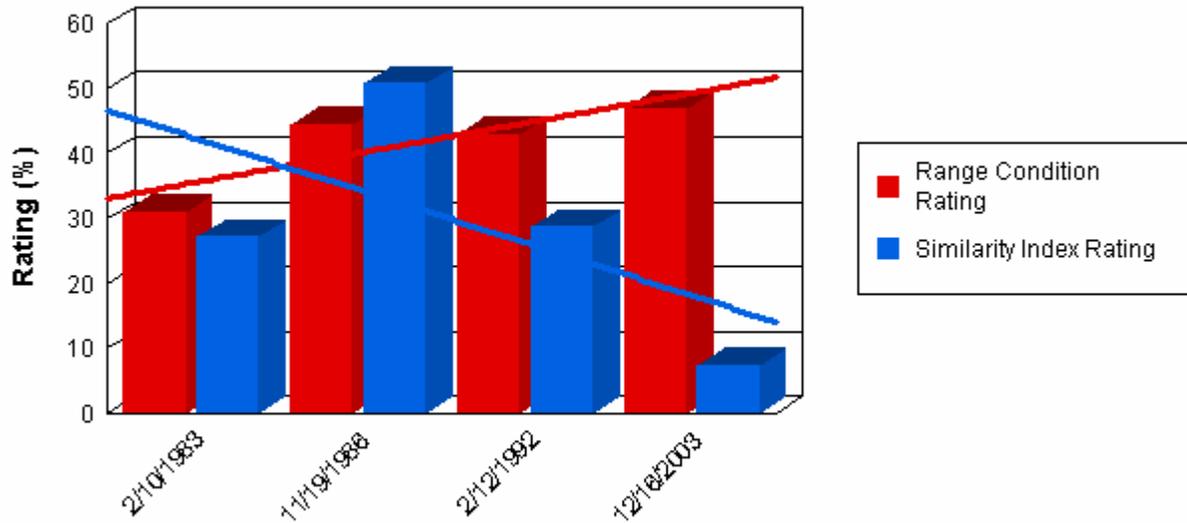
SHALLOW SD-3

042CY025NM

| Date | Range Cond. | Similarity Index | Total Production | Normal Year Production |
|------------|-------------|------------------|------------------|------------------------|
| 02/10/1983 | 31.00 | 27.24 | 400.00 | 525 |
| 11/19/1986 | 44.55 | 50.86 | 641.00 | 525 |
| 02/12/1992 | 43.00 | 28.76 | 271.00 | 525 |
| 12/16/2003 | 46.95 | 7.43 | 18.57 | 525 |

Traditional Range Condition vs Similarity Index

With Trendlines



Traditional Range Condition and Similarity Index Data

VEGID: 985

64060 HONDO CANYON

64060-N BUCHANAN-F243

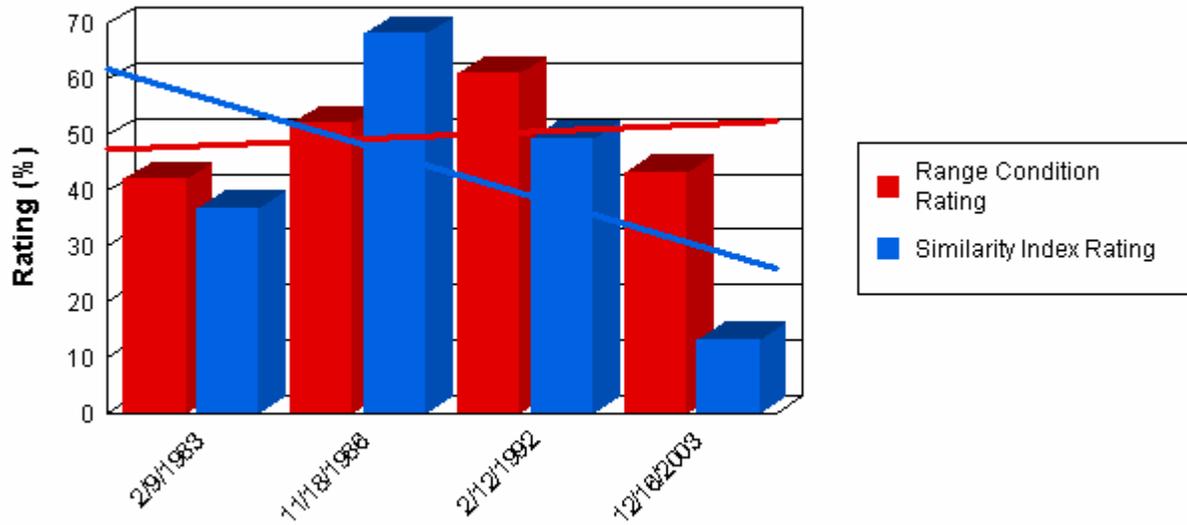
SHALLOW SD-3

042CY025NM

| Date | Range Cond. | Similarity Index | Total Production | Normal Year Production |
|------------|-------------|------------------|------------------|------------------------|
| 02/09/1983 | 42.07 | 36.95 | 422.00 | 525 |
| 11/18/1986 | 52.17 | 68.19 | 743.00 | 525 |
| 02/12/1992 | 61.00 | 49.33 | 333.00 | 525 |
| 12/16/2003 | 43.33 | 13.32 | 37.54 | 525 |

Traditional Range Condition vs Similarity Index

With Trendlines



Traditional Range Condition and Similarity Index Data

VEGID: 986

64060 HONDO CANYON

64060-LONGHOUSE-F244

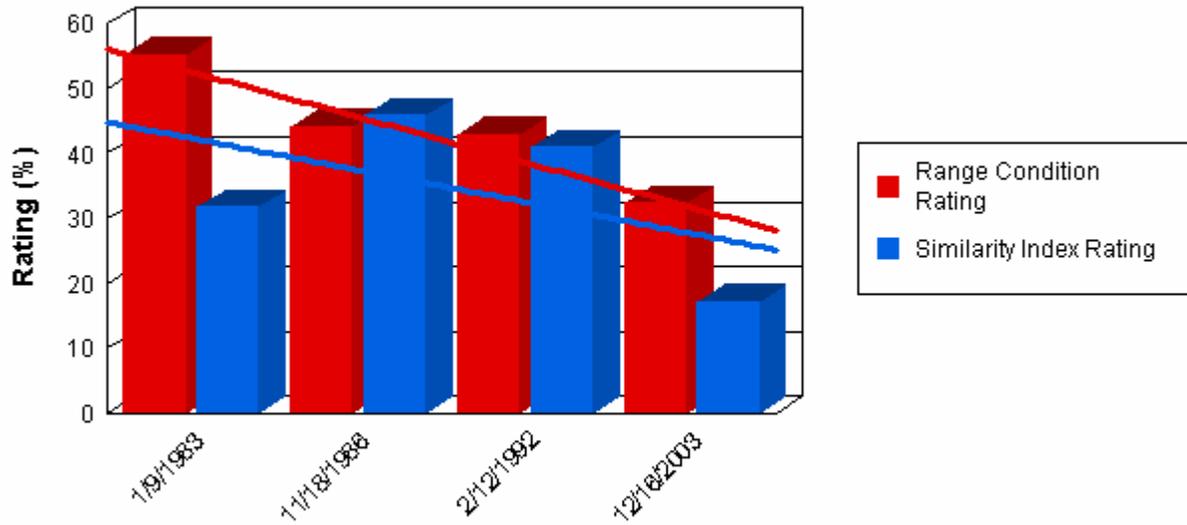
SHALLOW SD-3

042CY025NM

| Date | Range Cond. | Similarity Index | Total Production | Normal Year Production |
|------------|-------------|------------------|------------------|------------------------|
| 01/09/1983 | 55.22 | 31.81 | 196.00 | 525 |
| 11/18/1986 | 44.16 | 45.90 | 637.00 | 525 |
| 02/12/1992 | 43.00 | 40.95 | 437.00 | 525 |
| 12/16/2003 | 32.35 | 17.12 | 83.86 | 525 |

Traditional Range Condition vs Similarity Index

With Trendlines



Allotment Weighted Average Range Condition and Similarity Index

NM06000

Date Printed: 6/26/200

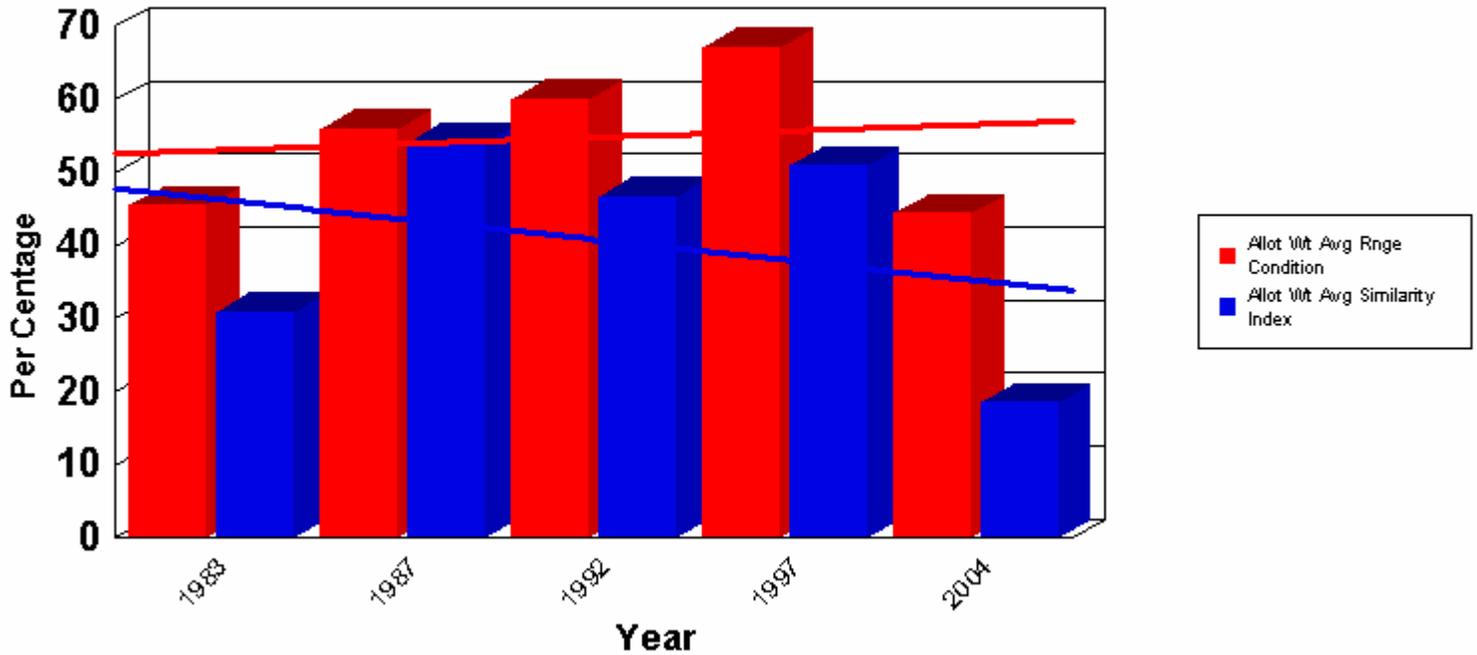
64060 HONDO CANYON

Data Information presented below is based on the allotment weighted average of range condition and similarity index ratings for the years included in the allotment monitoring evaluations. The trendline is based on linear regression for each data set.

| Year | Range Condition | Similarity Index |
|------|-----------------|------------------|
| 1983 | 45.52 | 30.91 |
| 1987 | 56.02 | 54.08 |
| 1992 | 60.09 | 46.79 |
| 1997 | 67.15 | 50.97 |
| 2004 | 44.39 | 18.51 |

Weighted Average Range Condition vs Similarity Index

With Trendlines



64060

64060 HONDO CANYON

EAST BORDER

Vegid#: 933

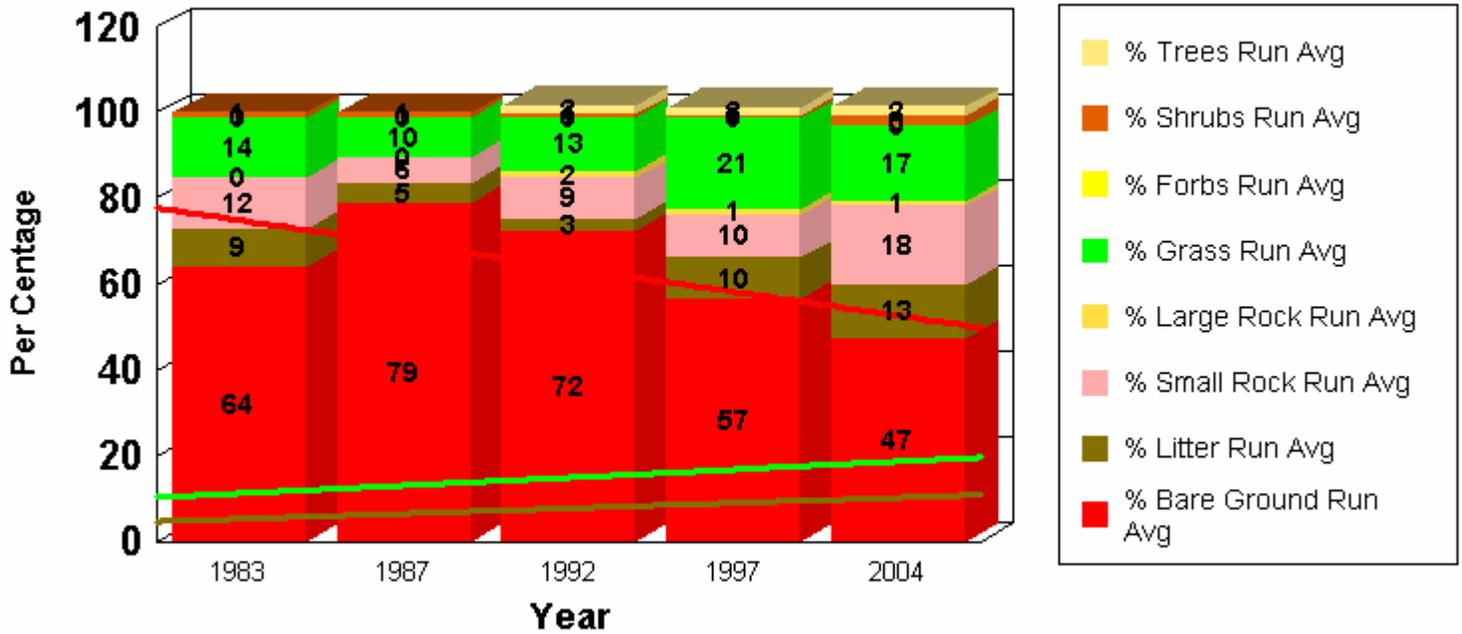
64060-EAST BORDER-F191

Ecological Site No.: 042CY025NM

Location: Township: 0110S Range 0210E Section 05 QtrQtr: SESE

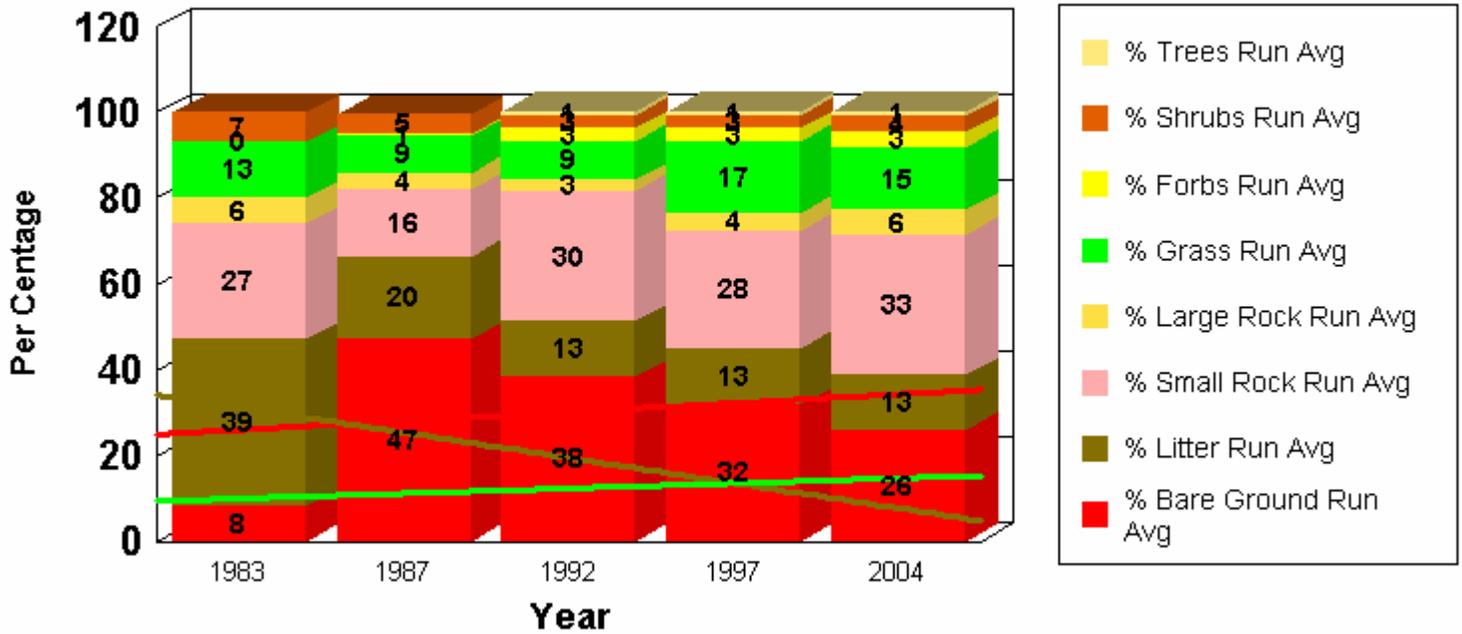
| Year | Bare Ground | Litter | Small Rock | Large Rock | Forbs | Grass | Shrubs | Trees | Running Average Bground | Running Average Litter | Running Average Srock | Running Average Lrock | Running Average Forb | Running Average Grass | Running Average Shrubs | Running Average Trees |
|------|-------------|--------|------------|------------|-------|-------|--------|-------|-------------------------|------------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|
| 1983 | 64.00 | 9.00 | 12.00 | 0.00 | 0 | 14.00 | 1.00 | | 64.00 | 9.00 | 12.00 | 0 | 0 | 14.00 | 1.00 | |
| 1987 | 94.00 | 0.00 | 0.00 | 0.00 | 0 | 5.00 | 1.00 | | 79.00 | 4.50 | 6.00 | 0 | 0 | 9.50 | 1.00 | |
| 1992 | 59.00 | 0.00 | 16.00 | 5.00 | 0 | 19.00 | 0.00 | 2.00 | 72.33 | 3.00 | 9.33 | 1.67 | 0 | 12.67 | 0.67 | 2.00 |
| 1997 | 9.00 | 30.00 | 12.00 | 0.00 | 0 | 47.00 | 0.00 | | 56.50 | 9.75 | 10.00 | 1.25 | 0 | 21.25 | 0.50 | 2.00 |
| 2004 | 11.00 | 24.00 | 51.00 | 1.00 | 0 | 2.00 | 11.00 | | 47.40 | 12.60 | 18.20 | 1.20 | 0 | 17.40 | 2.60 | 2.00 |

Running Average Ground Cover Trends
With Trendlines



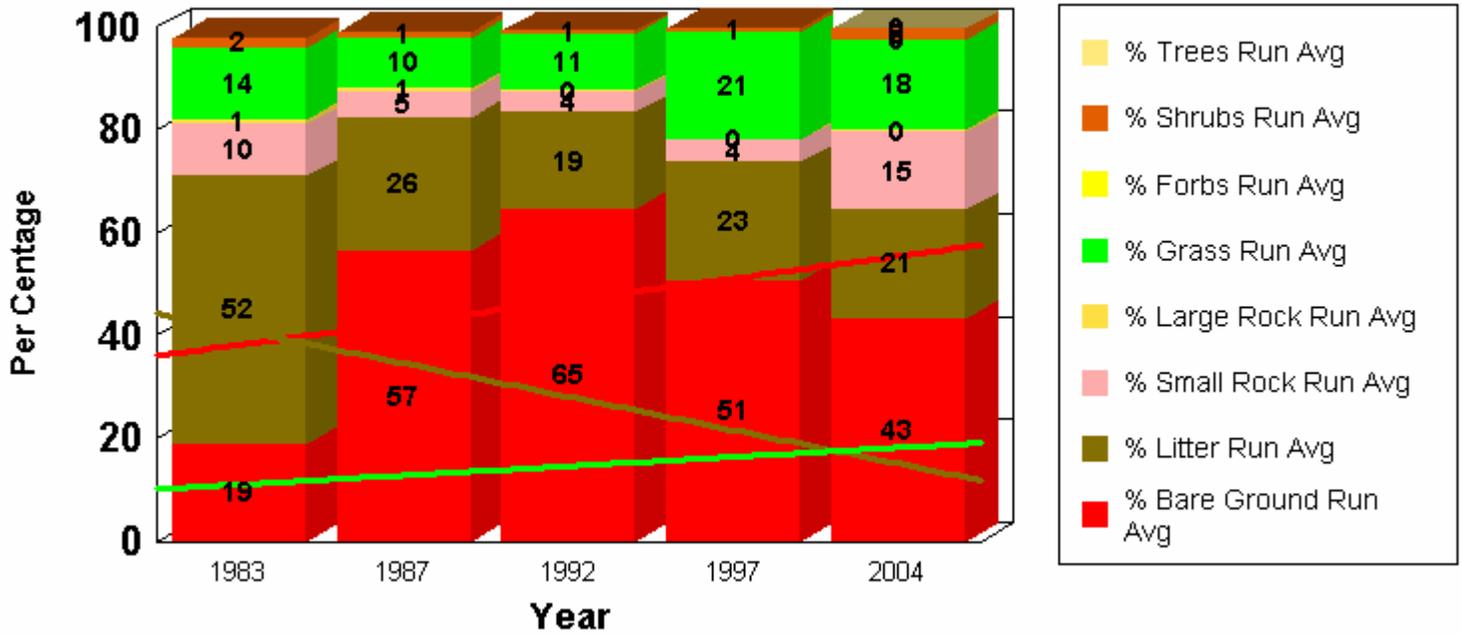
| Year | Bare Ground | Litter | Small Rock | Large Rock | Forbs | Grass | Shrubs | Trees | Running Average Bground | Running Average Litter | Running Average Srock | Running Average Lrock | Running Average Forb | Running Average Grass | Running Average Shrubs | Running Average Trees |
|------|-------------|--------|------------|------------|-------|-------|--------|-------|-------------------------|------------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|
| 1983 | 8.00 | 39.00 | 27.00 | 6.00 | 0 | 13.00 | 7.00 | | 8.00 | 39.00 | 27.00 | 6.00 | 0 | 13.00 | 7.00 | |
| 1987 | 86.00 | 0.00 | 4.00 | 2.00 | 1.00 | 4.00 | 2.00 | | 47.00 | 19.50 | 15.50 | 4.00 | 0.50 | 8.50 | 4.50 | |
| 1992 | 21.00 | 0.00 | 60.00 | 0.00 | 8.00 | 10.00 | 0.00 | 1.00 | 38.33 | 13.00 | 30.33 | 2.67 | 3.00 | 9.00 | 3.00 | 1.00 |
| 1997 | 12.00 | 14.00 | 19.00 | 8.00 | 3.00 | 40.00 | 3.00 | | 31.75 | 13.25 | 27.50 | 4.00 | 3.00 | 16.75 | 3.00 | 1.00 |
| 2004 | 3.00 | 11.00 | 54.00 | 12.00 | 5.00 | 7.00 | 7.00 | 1.00 | 26.00 | 12.80 | 32.80 | 5.60 | 3.40 | 14.80 | 3.80 | 1.00 |

Running Average Ground Cover Trends
With Trendlines



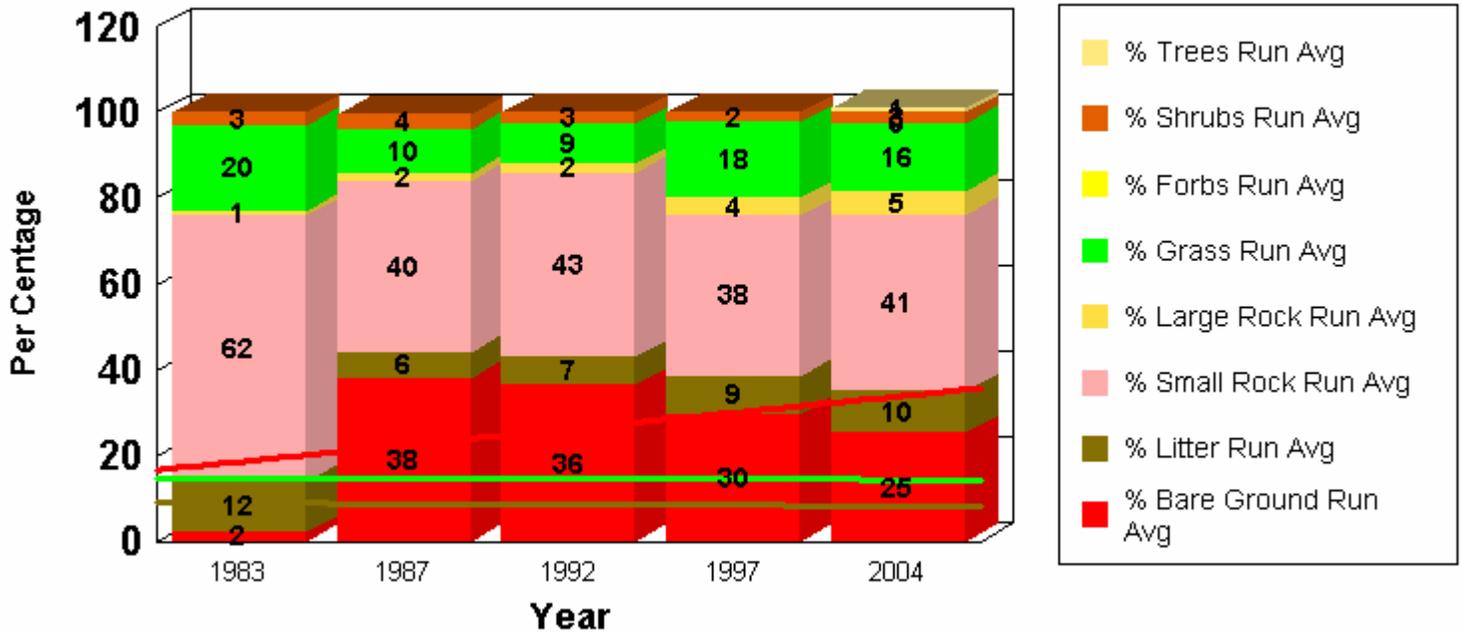
| Year | Bare Ground | Litter | Small Rock | Large Rock | Forbs | Grass | Shrubs | Trees | Running Average Bground | Running Average Litter | Running Average Srock | Running Average Lrock | Running Average Forb | Running Average Grass | Running Average Shrubs | Running Average Trees |
|------|-------------|--------|------------|------------|-------|-------|--------|-------|-------------------------|------------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|
| 1983 | 19.00 | 52.00 | 10.00 | 1.00 | | 14.00 | 2.00 | | 19.00 | 52.00 | 10.00 | 1.00 | | 14.00 | 2.00 | |
| 1987 | 94.00 | 0.00 | 0.00 | 0.00 | | 6.00 | 0.00 | | 56.50 | 26.00 | 5.00 | 0.50 | | 10.00 | 1.00 | |
| 1992 | 81.00 | 4.00 | 2.00 | 0.00 | | 13.00 | 0.00 | | 64.67 | 18.67 | 4.00 | 0.33 | | 11.00 | 0.67 | |
| 1997 | 9.00 | 36.00 | 5.00 | 0.00 | | 50.00 | 1.00 | | 50.75 | 23.00 | 4.25 | 0.25 | | 20.75 | 0.75 | |
| 2004 | 14.00 | 13.00 | 59.00 | 1.00 | 0 | 5.00 | 7.00 | 0.00 | 43.40 | 21.00 | 15.20 | 0.40 | 0 | 17.60 | 2.00 | 0.00 |

Running Average Ground Cover Trends
With Trendlines



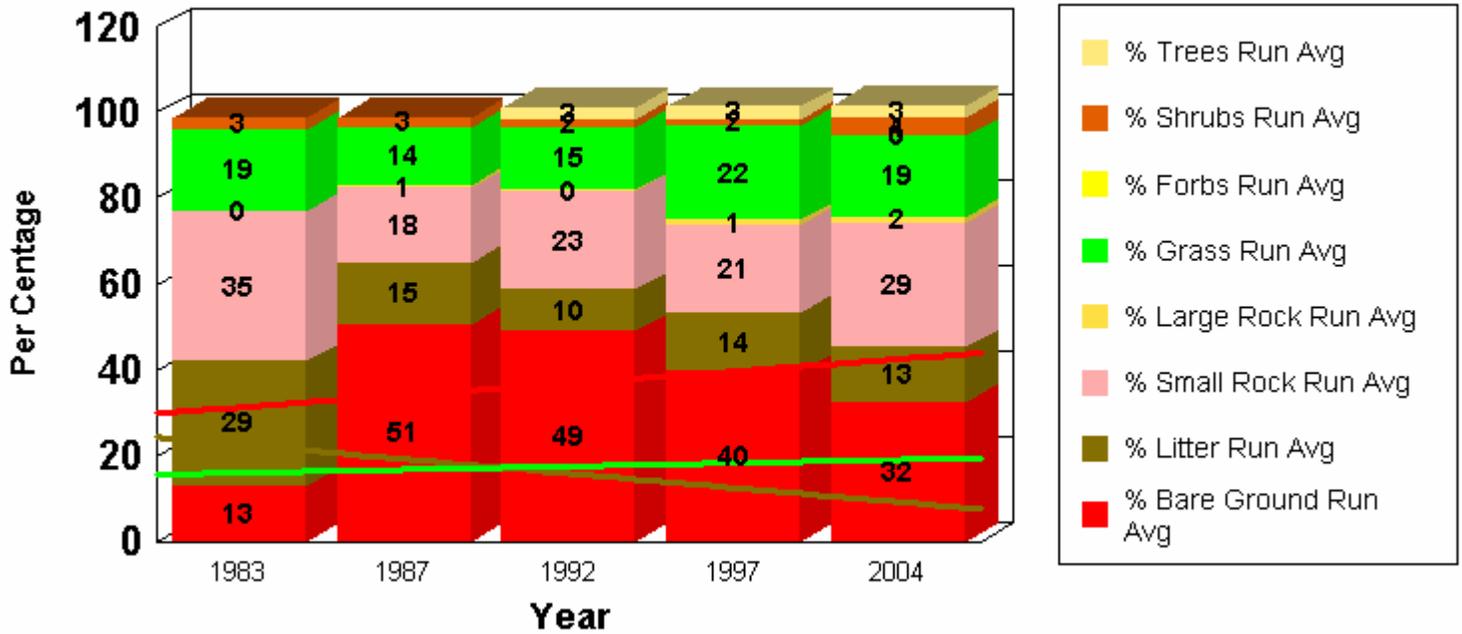
| Year | Bare Ground | Litter | Small Rock | Large Rock | Forbs | Grass | Shrubs | Trees | Running Average Bground | Running Average Litter | Running Average Srock | Running Average Lrock | Running Average Forb | Running Average Grass | Running Average Shrubs | Running Average Trees |
|------|-------------|--------|------------|------------|-------|-------|--------|-------|-------------------------|------------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|
| 1983 | 2.00 | 12.00 | 62.00 | 1.00 | | 20.00 | 3.00 | | 2.00 | 12.00 | 62.00 | 1.00 | | 20.00 | 3.00 | |
| 1987 | 74.00 | 0.00 | 18.00 | 3.00 | | 0.00 | 4.00 | | 38.00 | 6.00 | 40.00 | 2.00 | | 10.00 | 3.50 | |
| 1992 | 33.00 | 8.00 | 49.00 | 2.00 | | 8.00 | 1.00 | | 36.33 | 6.67 | 43.00 | 2.00 | | 9.33 | 2.67 | |
| 1997 | 10.00 | 15.00 | 21.00 | 10.00 | | 43.00 | 1.00 | | 29.75 | 8.75 | 37.50 | 4.00 | | 17.75 | 2.25 | |
| 2004 | 7.00 | 14.00 | 56.00 | 11.00 | 0 | 8.00 | 4.00 | 1.00 | 25.20 | 9.80 | 41.20 | 5.40 | 0 | 15.80 | 2.60 | 1.00 |

Running Average Ground Cover Trends
With Trendlines



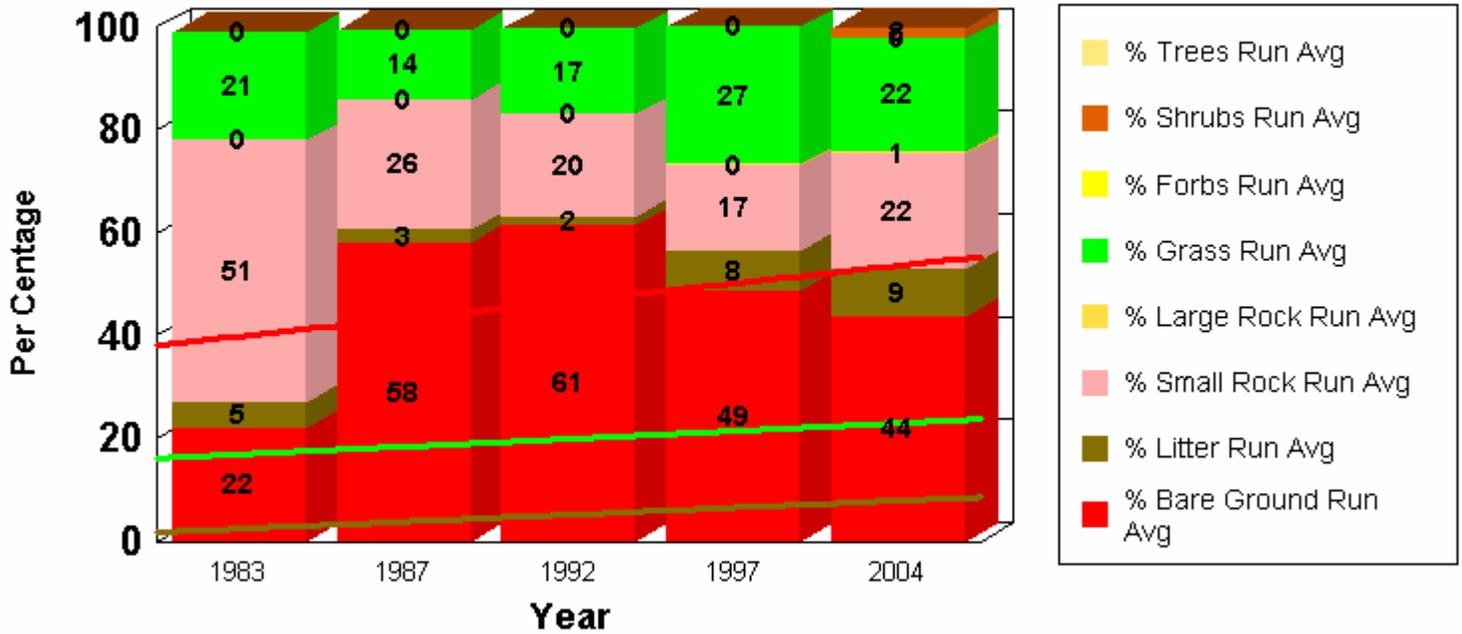
| Year | Bare Ground | Litter | Small Rock | Large Rock | Forbs | Grass | Shrubs | Trees | Running Average Bground | Running Average Litter | Running Average Srock | Running Average Lrock | Running Average Forb | Running Average Grass | Running Average Shrubs | Running Average Trees |
|------|-------------|--------|------------|------------|-------|-------|--------|-------|-------------------------|------------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|
| 1983 | 13.00 | 29.00 | 35.00 | 0.00 | | 19.00 | 3.00 | | 13.00 | 29.00 | 35.00 | 0 | | 19.00 | 3.00 | |
| 1987 | 88.00 | 0.00 | 0.00 | 1.00 | | 8.00 | 2.00 | | 50.50 | 14.50 | 17.50 | 0.50 | | 13.50 | 2.50 | |
| 1992 | 46.00 | 0.00 | 34.00 | 0.00 | | 17.00 | 0.00 | 3.00 | 49.00 | 9.67 | 23.00 | 0.33 | | 14.67 | 1.67 | 3.00 |
| 1997 | 12.00 | 25.00 | 13.00 | 4.00 | | 44.00 | 1.00 | | 39.75 | 13.50 | 20.50 | 1.25 | | 22.00 | 1.50 | 3.00 |
| 2004 | 3.00 | 10.00 | 63.00 | 3.00 | 0 | 5.00 | 16.00 | | 32.40 | 12.80 | 29.00 | 1.60 | 0 | 18.60 | 4.40 | 3.00 |

Running Average Ground Cover Trends
With Trendlines



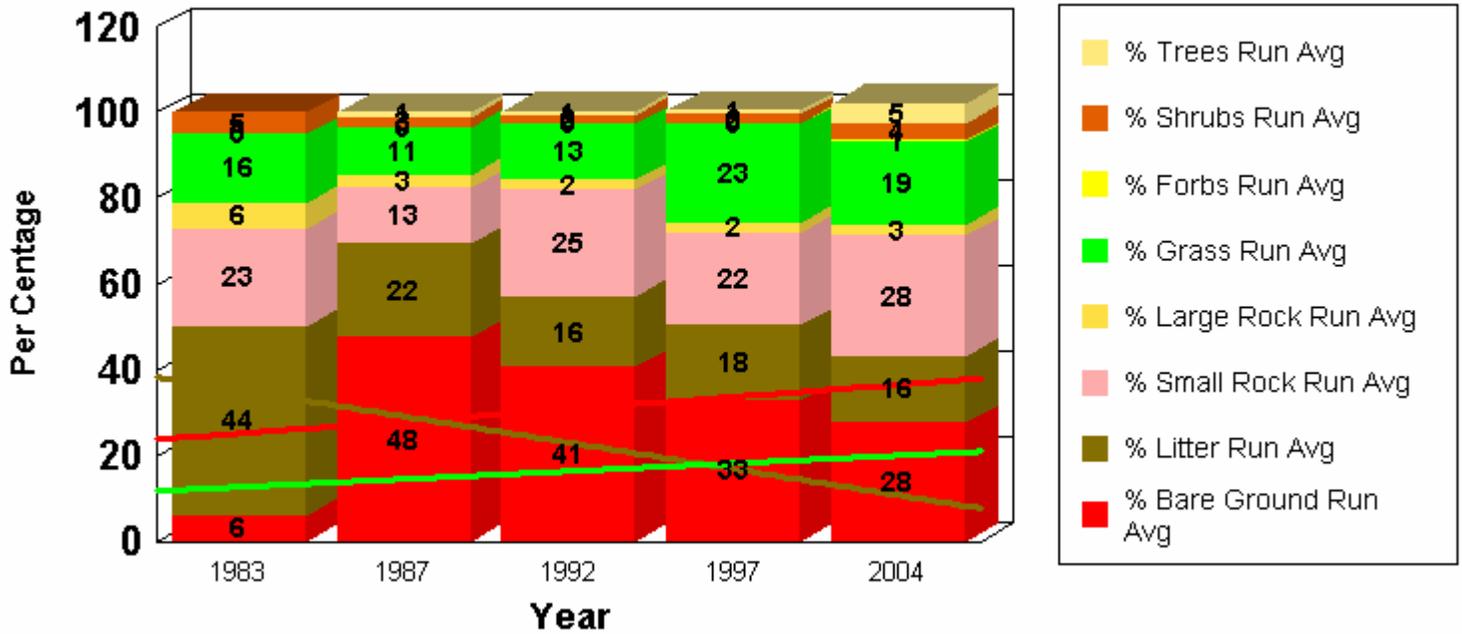
| Year | Bare Ground | Litter | Small Rock | Large Rock | Forbs | Grass | Shrubs | Trees | Running Average Bground | Running Average Litter | Running Average Srock | Running Average Lrock | Running Average Forb | Running Average Grass | Running Average Shrubs | Running Average Trees |
|------|-------------|--------|------------|------------|-------|-------|--------|-------|-------------------------|------------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|
| 1983 | 22.00 | 5.00 | 51.00 | 0.00 | 0 | 21.00 | 0.00 | | 22.00 | 5.00 | 51.00 | 0 | 0 | 21.00 | 0.00 | |
| 1987 | 94.00 | 0.00 | 0.00 | 0.00 | 0 | 6.00 | 0.00 | | 58.00 | 2.50 | 25.50 | 0 | 0 | 13.50 | 0.00 | |
| 1992 | 68.00 | 0.00 | 9.00 | 0.00 | | 23.00 | 0.00 | | 61.33 | 1.67 | 20.00 | 0 | 0 | 16.67 | 0.00 | |
| 1997 | 11.00 | 26.00 | 6.00 | 1.00 | | 57.00 | 0.00 | | 48.75 | 7.75 | 16.50 | 0.25 | 0 | 26.75 | 0.00 | |
| 2004 | 24.00 | 15.00 | 45.00 | 2.00 | | 3.00 | 10.00 | | 43.80 | 9.20 | 22.20 | 0.60 | 0 | 22.00 | 2.00 | |

Running Average Ground Cover Trends
With Trendlines



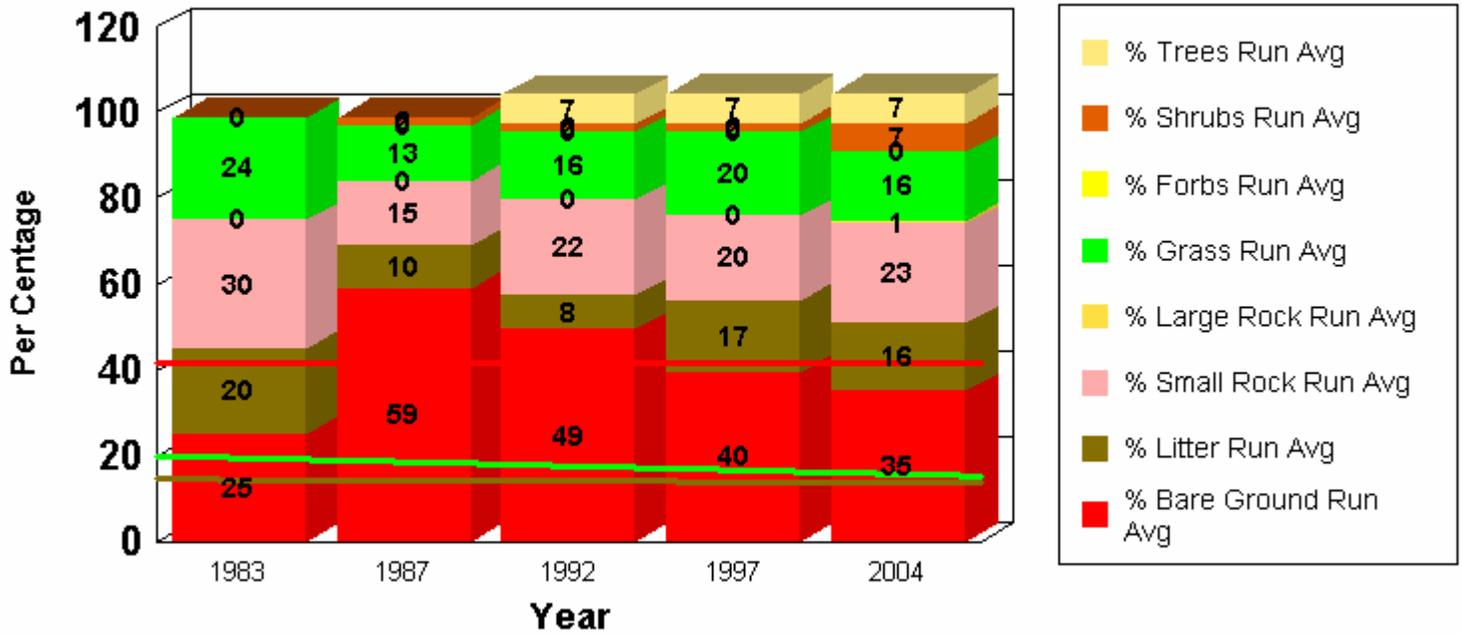
| Year | Bare Ground | Litter | Small Rock | Large Rock | Forbs | Grass | Shrubs | Trees | Running Average Bground | Running Average Litter | Running Average Srock | Running Average Lrock | Running Average Forb | Running Average Grass | Running Average Shrubs | Running Average Trees |
|------|-------------|--------|------------|------------|-------|-------|--------|-------|-------------------------|------------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|
| 1983 | 6.00 | 44.00 | 23.00 | 6.00 | 0 | 16.00 | 5.00 | | 6.00 | 44.00 | 23.00 | 6.00 | 0 | 16.00 | 5.00 | |
| 1987 | 89.00 | 0.00 | 3.00 | 0.00 | 0 | 6.00 | 0.00 | 1.00 | 47.50 | 22.00 | 13.00 | 3.00 | 0 | 11.00 | 2.50 | 1.00 |
| 1992 | 27.00 | 5.00 | 49.00 | 1.00 | 0 | 17.00 | 1.00 | | 40.67 | 16.33 | 25.00 | 2.33 | 0 | 13.00 | 2.00 | 1.00 |
| 1997 | 9.00 | 21.00 | 12.00 | 2.00 | 1.00 | 53.00 | 2.00 | | 32.75 | 17.50 | 21.75 | 2.25 | 0.25 | 23.00 | 2.00 | 1.00 |
| 2004 | 7.00 | 8.00 | 53.00 | 4.00 | 2.00 | 4.00 | 12.00 | 8.00 | 27.60 | 15.60 | 28.00 | 2.60 | 0.60 | 19.20 | 4.00 | 4.50 |

Running Average Ground Cover Trends
With Trendlines



| Year | Bare Ground | Litter | Small Rock | Large Rock | Forbs | Grass | Shrubs | Trees | Running Average Bground | Running Average Litter | Running Average Srock | Running Average Lrock | Running Average Forb | Running Average Grass | Running Average Shrubs | Running Average Trees |
|------|-------------|--------|------------|------------|-------|-------|--------|-------|-------------------------|------------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|
| 1983 | 25.00 | 20.00 | 30.00 | 0.00 | 0 | 24.00 | 0.00 | | 25.00 | 20.00 | 30.00 | 0 | 0 | 24.00 | 0.00 | |
| 1987 | 93.00 | 0.00 | 0.00 | 0.00 | 0 | 2.00 | 4.00 | | 59.00 | 10.00 | 15.00 | 0 | 0 | 13.00 | 2.00 | |
| 1992 | 30.00 | 4.00 | 37.00 | 0.00 | | 21.00 | 2.00 | 7.00 | 49.33 | 8.00 | 22.33 | 0 | 0 | 15.67 | 2.00 | 7.00 |
| 1997 | 10.00 | 43.00 | 12.00 | 0.00 | | 31.00 | 2.00 | | 39.50 | 16.75 | 19.75 | 0 | 0 | 19.50 | 2.00 | 7.00 |
| 2004 | 17.00 | 12.00 | 37.00 | 4.00 | | 2.00 | 26.00 | | 35.00 | 15.80 | 23.20 | 0.80 | 0 | 16.00 | 6.80 | 7.00 |

Running Average Ground Cover Trends
With Trendlines



64060 HONDO CANYON

HONDO

Vegid#: 941

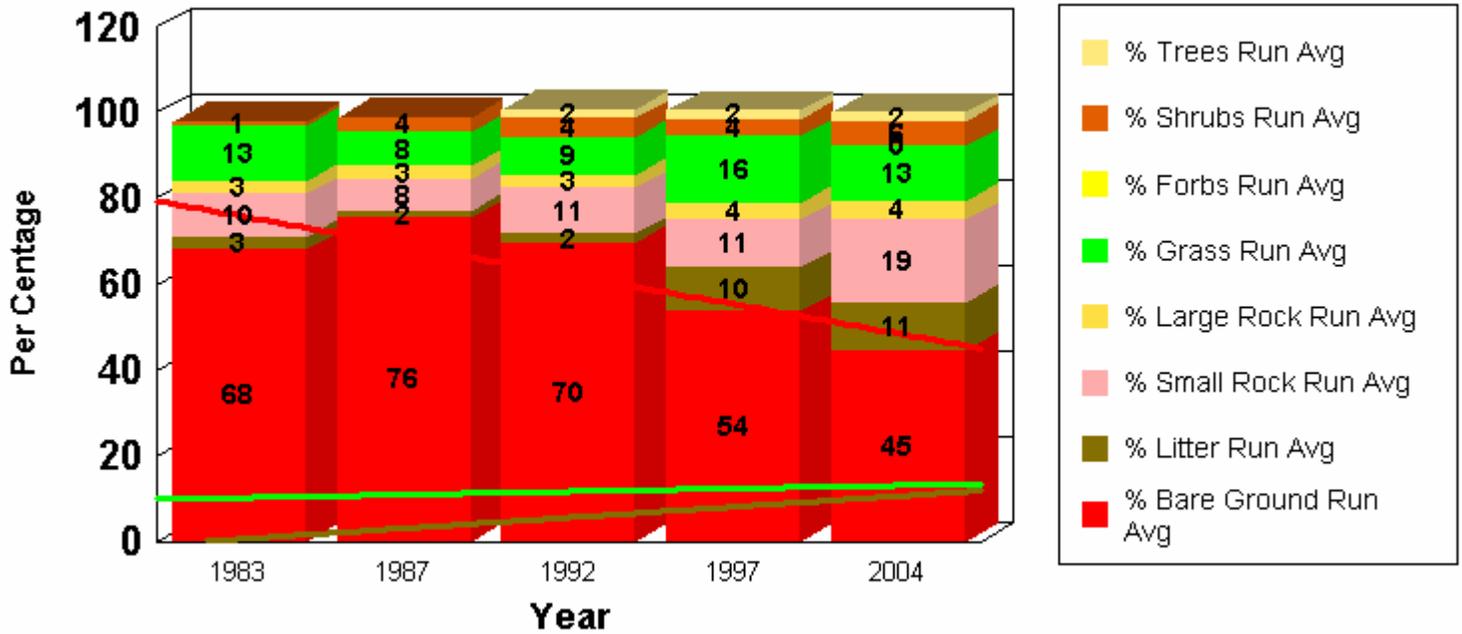
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Ecological Site No.: 070DY158NM

Location: Township: 0110S Range 0200E Section 13 QtrQtr: NWNW

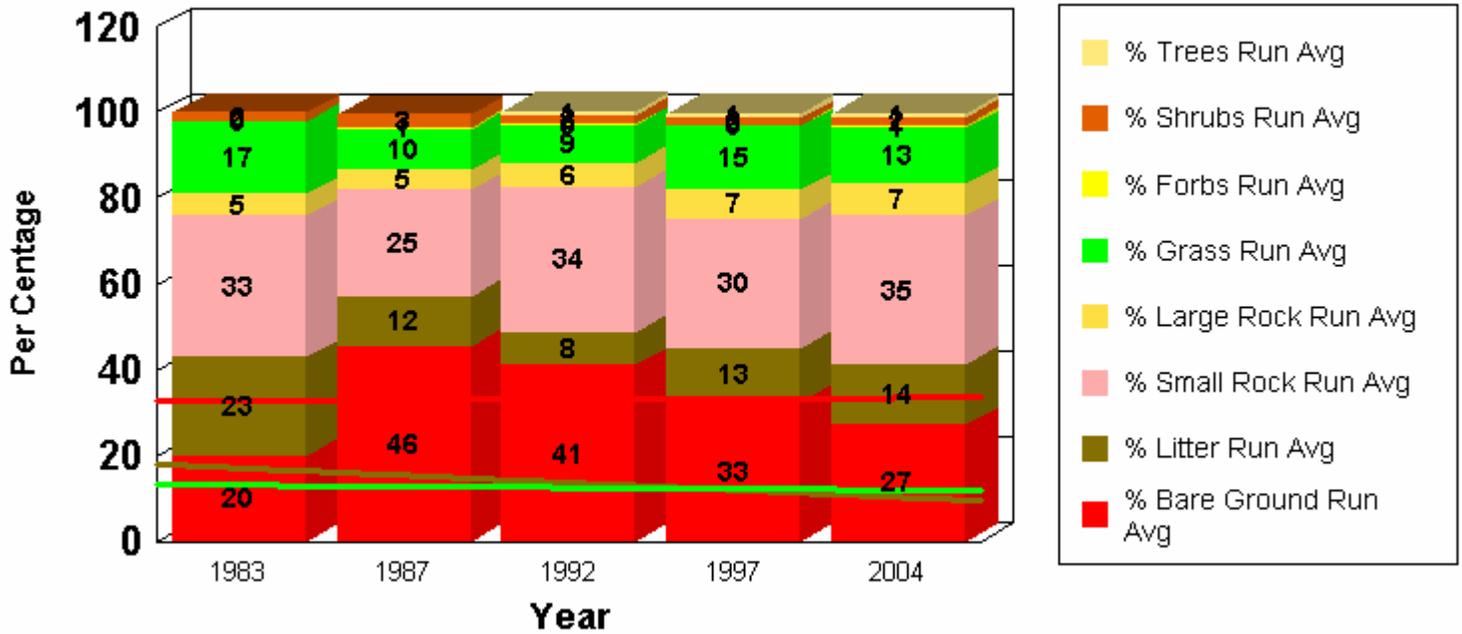
| Year | Bare Ground | Litter | Small Rock | Large Rock | Forbs | Grass | Shrubs | Trees | Running Average Bground | Running Average Litter | Running Average Srock | Running Average Lrock | Running Average Forb | Running Average Grass | Running Average Shrubs | Running Average Trees |
|------|-------------|--------|------------|------------|-------|-------|--------|-------|-------------------------|------------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|
| 1983 | 68.00 | 3.00 | 10.00 | 3.00 | | 13.00 | 1.00 | | 68.00 | 3.00 | 10.00 | 3.00 | | 13.00 | 1.00 | |
| 1987 | 83.00 | 0.00 | 5.00 | 3.00 | | 3.00 | 6.00 | | 75.50 | 1.50 | 7.50 | 3.00 | | 8.00 | 3.50 | |
| 1992 | 58.00 | 3.00 | 17.00 | 3.00 | | 11.00 | 6.00 | 2.00 | 69.67 | 2.00 | 10.67 | 3.00 | | 9.00 | 4.33 | 2.00 |
| 1997 | 5.00 | 35.00 | 13.00 | 7.00 | | 35.00 | 3.00 | | 53.50 | 10.25 | 11.25 | 4.00 | | 15.50 | 4.00 | 2.00 |
| 2004 | 9.00 | 15.00 | 51.00 | 6.00 | 0 | 2.00 | 13.00 | 2.00 | 44.60 | 11.20 | 19.20 | 4.40 | 0 | 12.80 | 5.80 | 2.00 |

Running Average Ground Cover Trends
With Trendlines



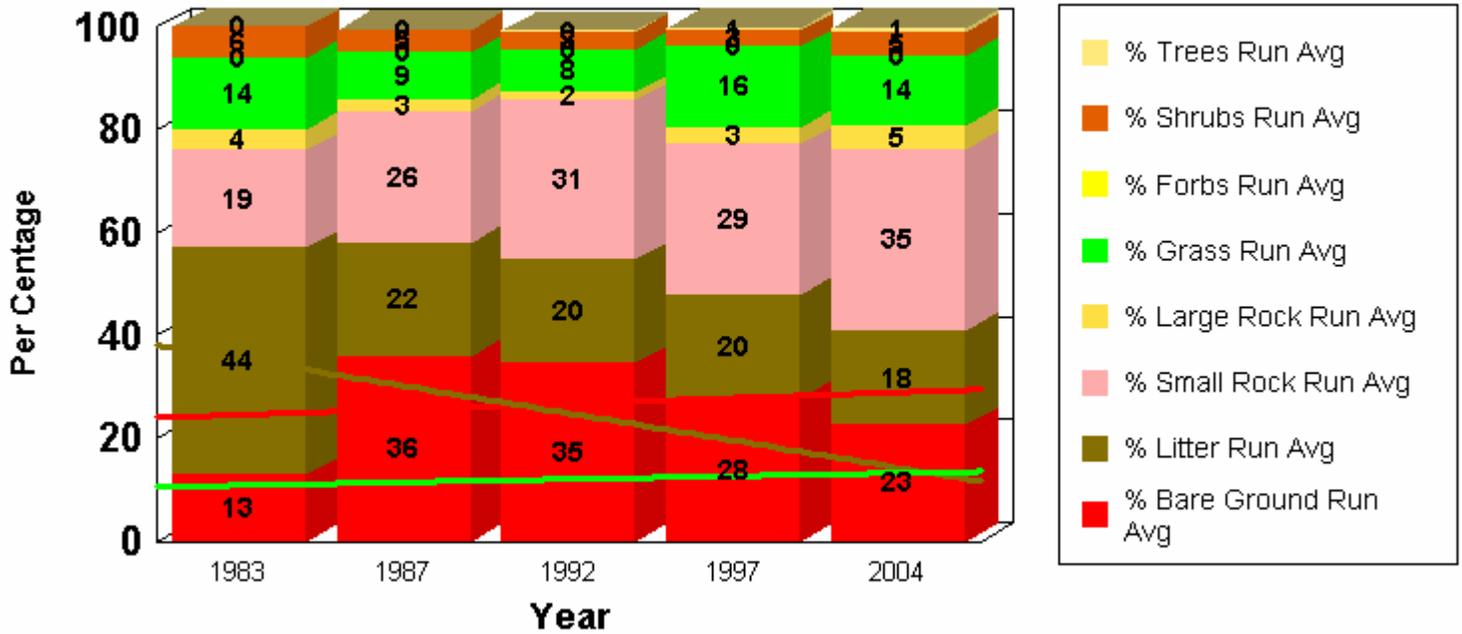
| Year | Bare Ground | Litter | Small Rock | Large Rock | Forbs | Grass | Shrubs | Trees | Running Average Bground | Running Average Litter | Running Average Srock | Running Average Lrock | Running Average Forb | Running Average Grass | Running Average Shrubs | Running Average Trees |
|------|-------------|--------|------------|------------|-------|-------|--------|-------|-------------------------|------------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|
| 1983 | 20.00 | 23.00 | 33.00 | 5.00 | 0 | 17.00 | 2.00 | | 20.00 | 23.00 | 33.00 | 5.00 | 0 | 17.00 | 2.00 | |
| 1987 | 71.00 | 0.00 | 17.00 | 4.00 | 1.00 | 2.00 | 4.00 | | 45.50 | 11.50 | 25.00 | 4.50 | 0.50 | 9.50 | 3.00 | |
| 1992 | 32.00 | 0.00 | 52.00 | 8.00 | 0 | 7.00 | 0.00 | 1.00 | 41.00 | 7.67 | 34.00 | 5.67 | 0.33 | 8.67 | 2.00 | 1.00 |
| 1997 | 7.00 | 27.00 | 19.00 | 10.00 | 0 | 33.00 | 1.00 | | 32.50 | 12.50 | 30.25 | 6.75 | 0.25 | 14.75 | 1.75 | 1.00 |
| 2004 | 6.00 | 20.00 | 53.00 | 10.00 | 2.00 | 6.00 | 2.00 | 1.00 | 27.20 | 14.00 | 34.80 | 7.40 | 0.60 | 13.00 | 1.80 | 1.00 |

Running Average Ground Cover Trends
With Trendlines



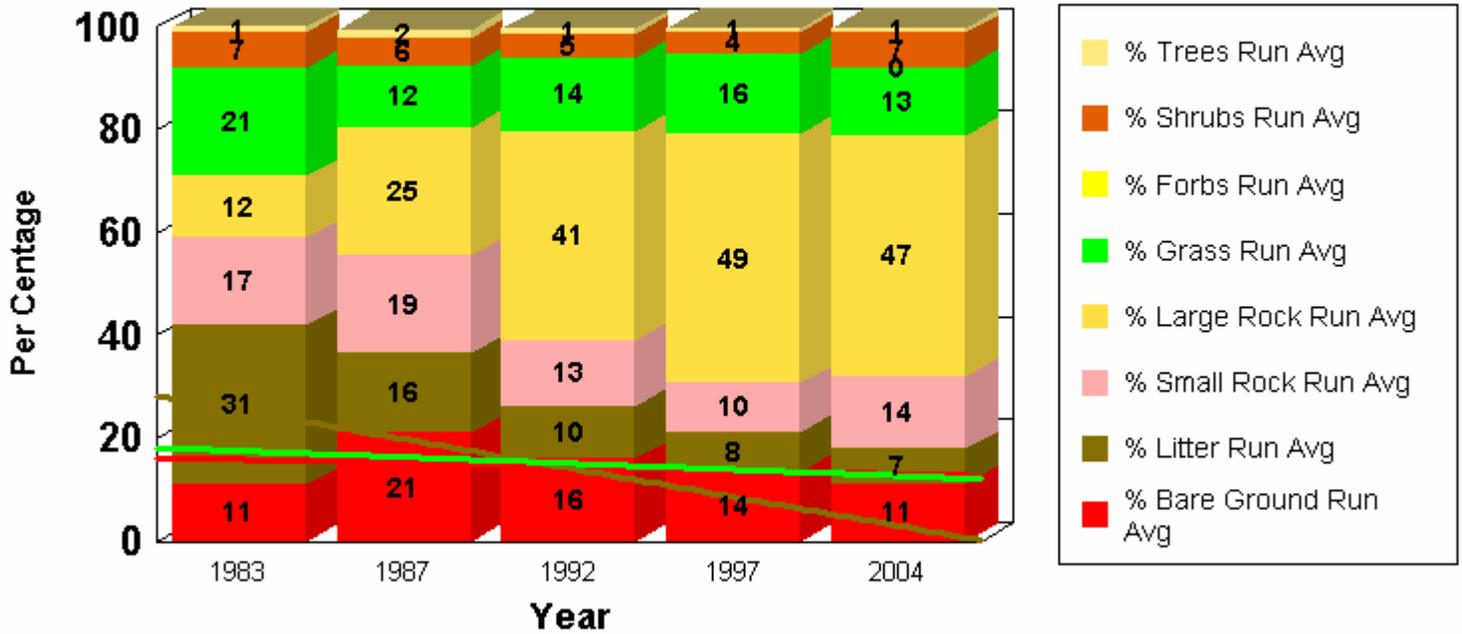
| Year | Bare Ground | Litter | Small Rock | Large Rock | Forbs | Grass | Shrubs | Trees | Running Average Bground | Running Average Litter | Running Average Srock | Running Average Lrock | Running Average Forb | Running Average Grass | Running Average Shrubs | Running Average Trees |
|------|-------------|--------|------------|------------|-------|-------|--------|-------|-------------------------|------------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|
| 1983 | 13.00 | 44.00 | 19.00 | 4.00 | 0 | 14.00 | 6.00 | 0.00 | 13.00 | 44.00 | 19.00 | 4.00 | 0 | 14.00 | 6.00 | 0.00 |
| 1987 | 59.00 | 0.00 | 32.00 | 1.00 | 0 | 4.00 | 3.00 | 0.00 | 36.00 | 22.00 | 25.50 | 2.50 | 0 | 9.00 | 4.50 | 0.00 |
| 1992 | 32.00 | 16.00 | 42.00 | 0.00 | | 7.00 | 1.00 | 1.00 | 34.67 | 20.00 | 31.00 | 1.67 | 0 | 8.33 | 3.33 | 0.33 |
| 1997 | 7.00 | 21.00 | 24.00 | 8.00 | | 38.00 | 2.00 | 1.00 | 27.75 | 20.25 | 29.25 | 3.25 | 0 | 15.75 | 3.00 | 0.50 |
| 2004 | 2.00 | 11.00 | 59.00 | 10.00 | | 5.00 | 11.00 | 2.00 | 22.60 | 18.40 | 35.20 | 4.60 | 0 | 13.60 | 4.60 | 0.80 |

Running Average Ground Cover Trends
With Trendlines



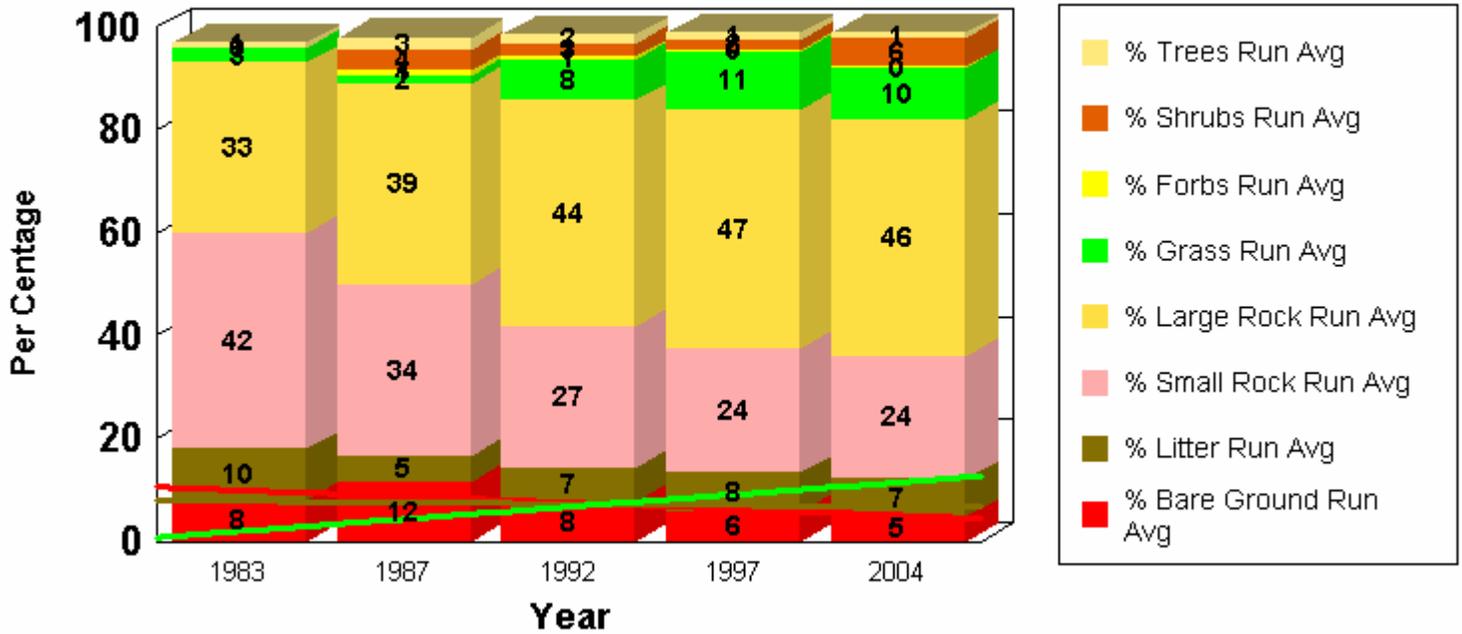
| Year | Bare Ground | Litter | Small Rock | Large Rock | Forbs | Grass | Shrubs | Trees | Running Average Bground | Running Average Litter | Running Average Srock | Running Average Lrock | Running Average Forb | Running Average Grass | Running Average Shrubs | Running Average Trees |
|------|-------------|--------|------------|------------|-------|-------|--------|-------|-------------------------|------------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|
| 1983 | 11.00 | 31.00 | 17.00 | 12.00 | | 21.00 | 7.00 | 1.00 | 11.00 | 31.00 | 17.00 | 12.00 | | 21.00 | 7.00 | 1.00 |
| 1987 | 31.00 | 0.00 | 21.00 | 38.00 | | 3.00 | 4.00 | 2.00 | 21.00 | 15.50 | 19.00 | 25.00 | | 12.00 | 5.50 | 1.50 |
| 1992 | 6.00 | 0.00 | 0.00 | 72.00 | | 19.00 | 3.00 | 0.00 | 16.00 | 10.33 | 12.67 | 40.67 | | 14.33 | 4.67 | 1.00 |
| 1997 | 6.00 | 0.00 | 0.00 | 72.00 | | 19.00 | 3.00 | 0.00 | 13.50 | 7.75 | 9.50 | 48.50 | | 15.50 | 4.25 | 0.75 |
| 2004 | 2.00 | 3.00 | 32.00 | 41.00 | 0 | 4.00 | 16.00 | 2.00 | 11.20 | 6.80 | 14.00 | 47.00 | 0 | 13.20 | 6.60 | 1.00 |

Running Average Ground Cover Trends
With Trendlines



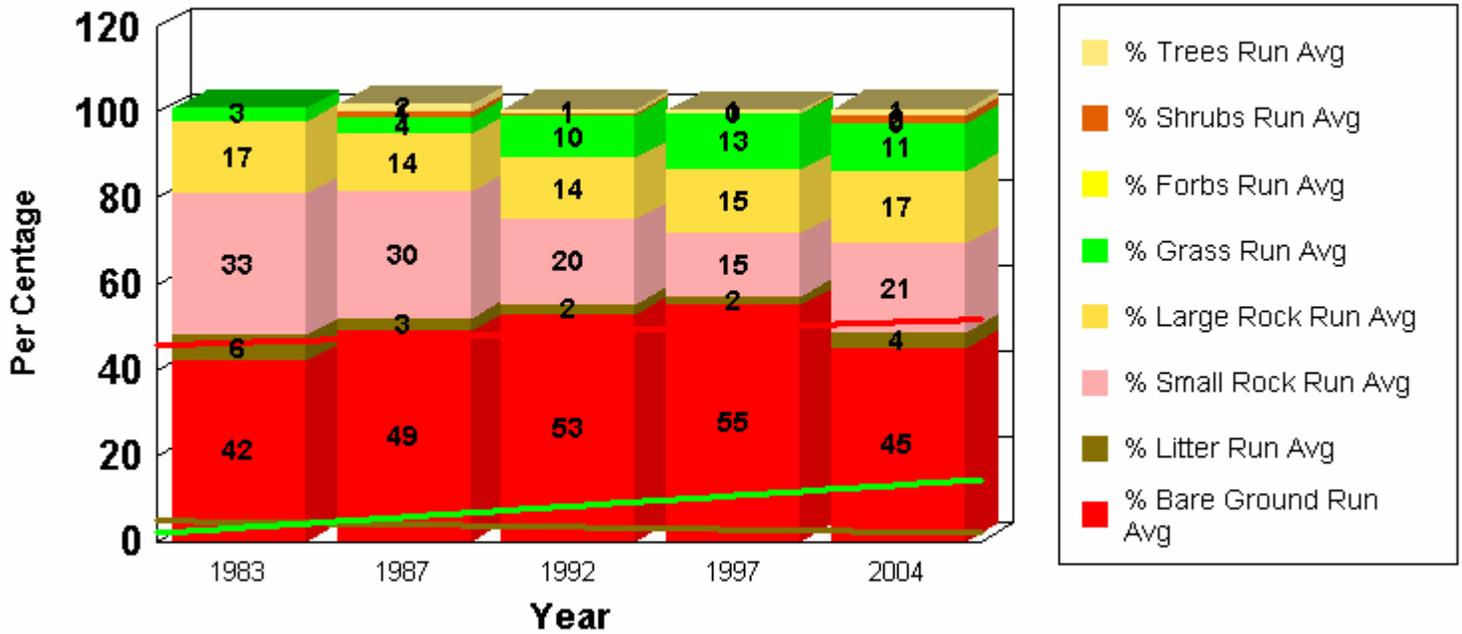
| Year | Bare Ground | Litter | Small Rock | Large Rock | Forbs | Grass | Shrubs | Trees | Running Average Bground | Running Average Litter | Running Average Srock | Running Average Lrock | Running Average Forb | Running Average Grass | Running Average Shrubs | Running Average Trees |
|------|-------------|--------|------------|------------|-------|-------|--------|-------|-------------------------|------------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|
| 1983 | 8.00 | 10.00 | 42.00 | 33.00 | | 3.00 | 0.00 | 1.00 | 8.00 | 10.00 | 42.00 | 33.00 | | 3.00 | 0.00 | 1.00 |
| 1987 | 15.00 | 0.00 | 25.00 | 45.00 | 1.00 | 0.00 | 8.00 | 4.00 | 11.50 | 5.00 | 33.50 | 39.00 | 1.00 | 1.50 | 4.00 | 2.50 |
| 1992 | 0.00 | 10.00 | 15.00 | 54.00 | 0 | 21.00 | 0.00 | 0.00 | 7.67 | 6.67 | 27.33 | 44.00 | 0.50 | 8.00 | 2.67 | 1.67 |
| 1997 | 0.00 | 10.00 | 15.00 | 54.00 | 0 | 21.00 | 0.00 | 0.00 | 5.75 | 7.50 | 24.25 | 46.50 | 0.33 | 11.25 | 2.00 | 1.25 |
| 2004 | 1.00 | 7.00 | 22.00 | 44.00 | 0 | 5.00 | 20.00 | 0.00 | 4.80 | 7.40 | 23.80 | 46.00 | 0.25 | 10.00 | 5.60 | 1.00 |

Running Average Ground Cover Trends
With Trendlines



| Year | Bare Ground | Litter | Small Rock | Large Rock | Forbs | Grass | Shrubs | Trees | Running Average Bground | Running Average Litter | Running Average Srock | Running Average Lrock | Running Average Forb | Running Average Grass | Running Average Shrubs | Running Average Trees |
|------|-------------|--------|------------|------------|-------|-------|--------|-------|-------------------------|------------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|
| 1983 | 42.00 | 6.00 | 33.00 | 17.00 | | 3.00 | | | 42.00 | 6.00 | 33.00 | 17.00 | | 3.00 | | |
| 1987 | 56.00 | 0.00 | 26.00 | 10.00 | | 5.00 | 1.00 | 2.00 | 49.00 | 3.00 | 29.50 | 13.50 | | 4.00 | 1.00 | 2.00 |
| 1992 | 61.00 | 1.00 | 0.00 | 16.00 | | 22.00 | 0.00 | 0.00 | 53.00 | 2.33 | 19.67 | 14.33 | | 10.00 | 0.50 | 1.00 |
| 1997 | 61.00 | 1.00 | 0.00 | 16.00 | | 22.00 | 0.00 | 0.00 | 55.00 | 2.00 | 14.75 | 14.75 | | 13.00 | 0.33 | 0.67 |
| 2004 | 5.00 | 10.00 | 45.00 | 26.00 | 0 | 3.00 | 7.00 | 3.00 | 45.00 | 3.60 | 20.80 | 17.00 | 0 | 11.00 | 2.00 | 1.25 |

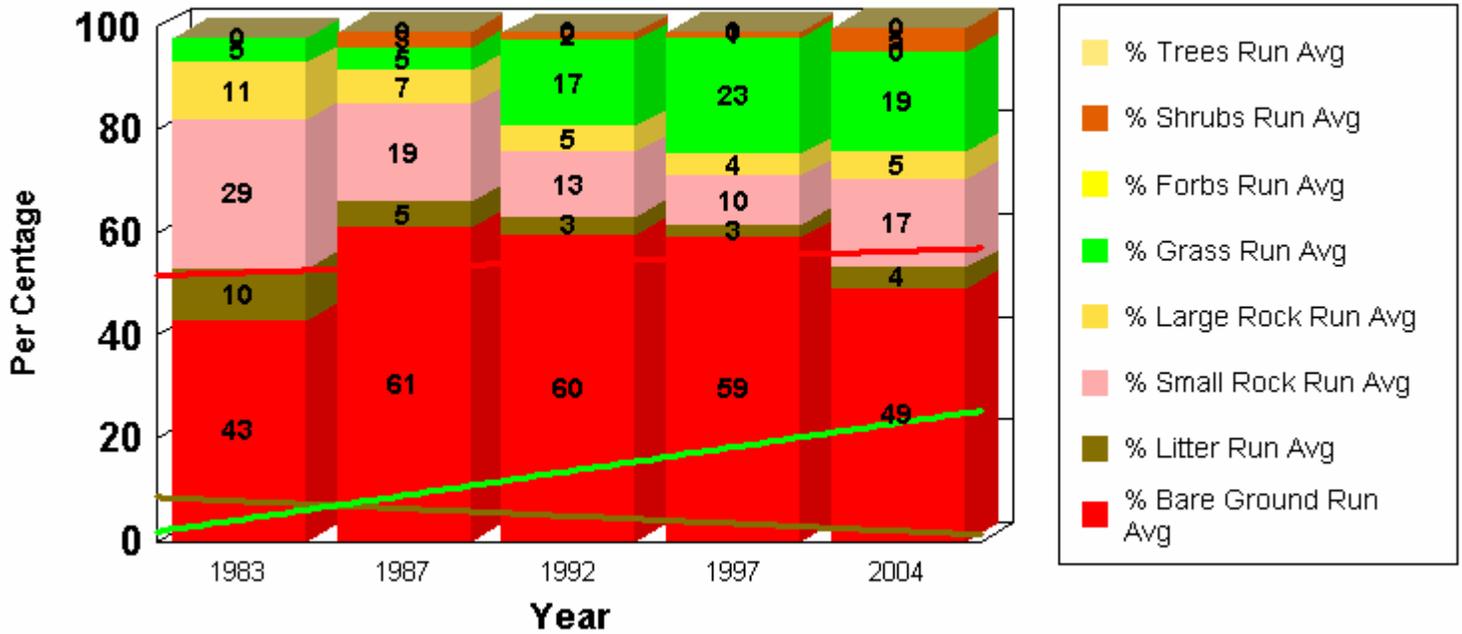
Running Average Ground Cover Trends
With Trendlines



Location: Township: 0120S Range 0210E Section 14 QtrQtr: NWSW

| Year | Bare Ground | Litter | Small Rock | Large Rock | Forbs | Grass | Shrubs | Trees | Running Average Bground | Running Average Litter | Running Average Srock | Running Average Lrock | Running Average Forb | Running Average Grass | Running Average Shrubs | Running Average Trees |
|------|-------------|--------|------------|------------|-------|-------|--------|-------|-------------------------|------------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|
| 1983 | 43.00 | 10.00 | 29.00 | 11.00 | | 5.00 | | 0.00 | 43.00 | 10.00 | 29.00 | 11.00 | | 5.00 | | 0.00 |
| 1987 | 79.00 | 0.00 | 9.00 | 2.00 | | 4.00 | 3.00 | 0.00 | 61.00 | 5.00 | 19.00 | 6.50 | | 4.50 | 3.00 | 0.00 |
| 1992 | 57.00 | 0.00 | 0.00 | 2.00 | | 41.00 | 0.00 | 0.00 | 59.67 | 3.33 | 12.67 | 5.00 | | 16.67 | 1.50 | 0.00 |
| 1997 | 57.00 | 0.00 | 0.00 | 2.00 | | 41.00 | 0.00 | 0.00 | 59.00 | 2.50 | 9.50 | 4.25 | | 22.75 | 1.00 | 0.00 |
| 2004 | 10.00 | 10.00 | 48.00 | 10.00 | 0 | 6.00 | 16.00 | 0.00 | 49.20 | 4.00 | 17.20 | 5.40 | 0 | 19.40 | 4.75 | 0.00 |

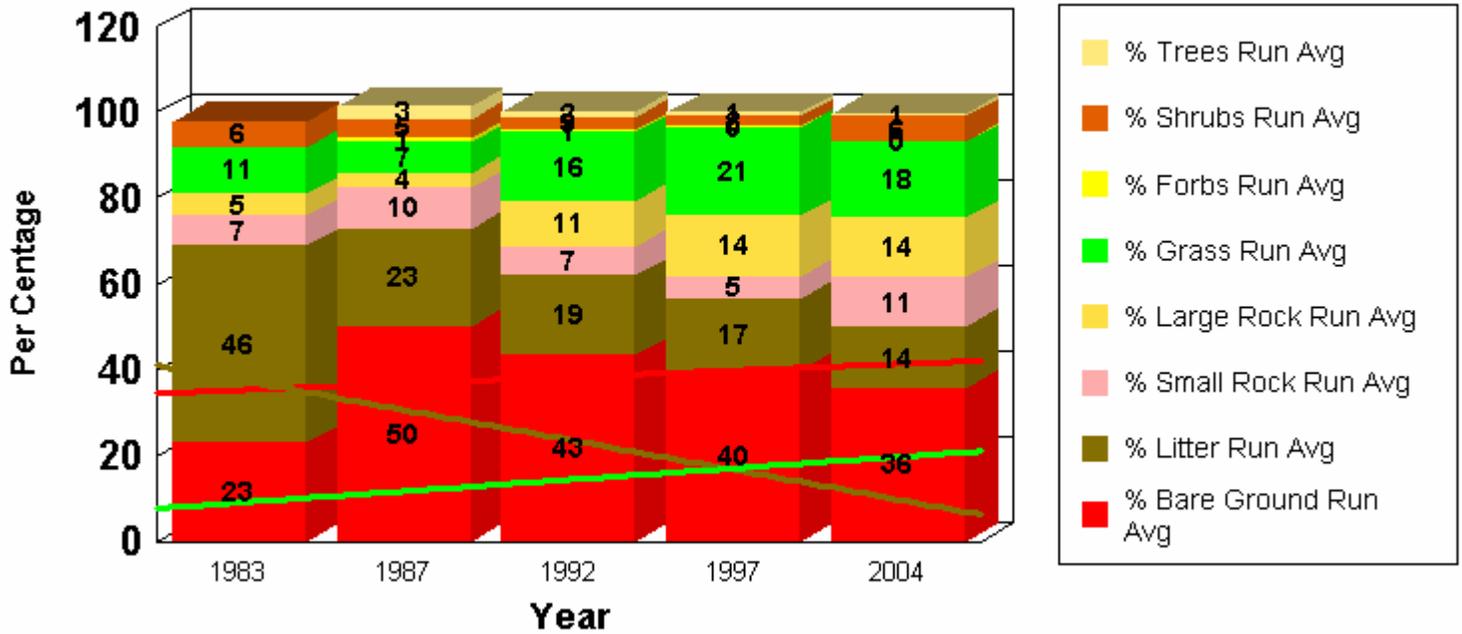
Running Average Ground Cover Trends
With Trendlines



Location: Township: 0120S Range 0210E Section 11 QtrQtr: NWSW

| Year | Bare Ground | Litter | Small Rock | Large Rock | Forbs | Grass | Shrubs | Trees | Running Average Bground | Running Average Litter | Running Average Srock | Running Average Lrock | Running Average Forb | Running Average Grass | Running Average Shrubs | Running Average Trees |
|------|-------------|--------|------------|------------|-------|-------|--------|-------|-------------------------|------------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|
| 1983 | 23.00 | 46.00 | 7.00 | 5.00 | | 11.00 | 6.00 | | 23.00 | 46.00 | 7.00 | 5.00 | | 11.00 | 6.00 | |
| 1987 | 77.00 | 0.00 | 12.00 | 2.00 | 1.00 | 3.00 | 3.00 | 3.00 | 50.00 | 23.00 | 9.50 | 3.50 | 1.00 | 7.00 | 4.50 | 3.00 |
| 1992 | 30.00 | 10.00 | 1.00 | 25.00 | 0 | 34.00 | 0.00 | 0.00 | 43.33 | 18.67 | 6.67 | 10.67 | 0.50 | 16.00 | 3.00 | 1.50 |
| 1997 | 30.00 | 10.00 | 1.00 | 25.00 | 0 | 34.00 | 0.00 | 0.00 | 40.00 | 16.50 | 5.25 | 14.25 | 0.33 | 20.50 | 2.25 | 1.00 |
| 2004 | 18.00 | 6.00 | 36.00 | 13.00 | 0 | 6.00 | 20.00 | 0.00 | 35.60 | 14.40 | 11.40 | 14.00 | 0.25 | 17.60 | 5.80 | 0.75 |

Running Average Ground Cover Trends
With Trendlines



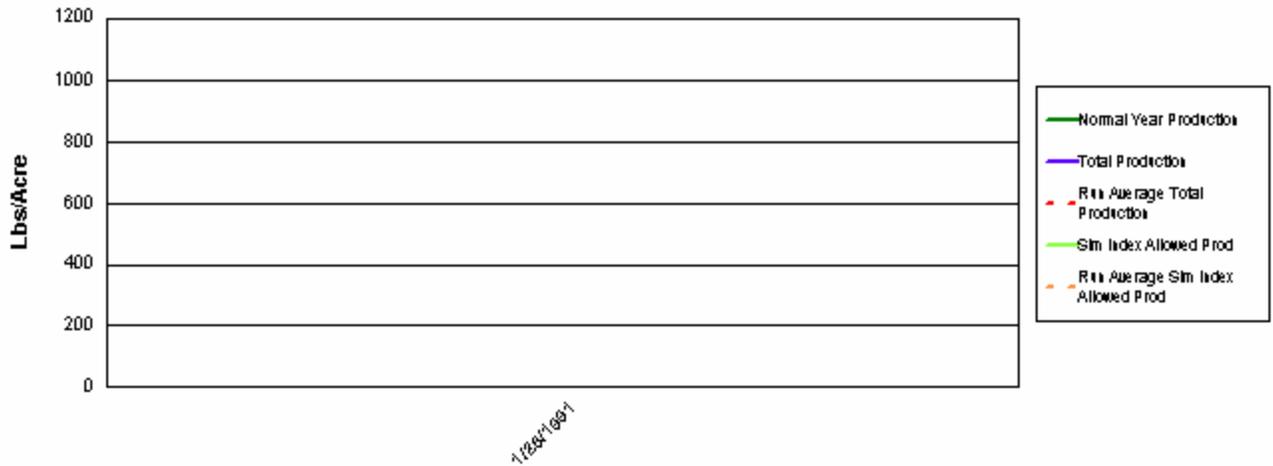
Production (lbs/ac) Data Trends

(Data Extracted From VMAP System)

| | | | | | | | |
|--------------------|----------------------|-------------------|----------------------|-----------------------|-------------------------|------------------|-----------|
| VEGID: | 142 | | | | | Date Printed: | 6/26/2006 |
| Allot No. | Allotment | Ecosite ID | | Ecosite Name | | Site Name | |
| 64560 | HONDO CANYON SEC 15 | 070DY151NM | LIMESTONE HILLS CP-4 | 64560-NUNEZ WEST-A142 | | | |
| Location: | T. 0110S | R. 0200E | Sec. 28 | QtrQt | NESE | UTM-N | |
| LINCOLN | County, NM | | | UTM-E | | | |
| Soil Sur No | Soil Map Unit | | Soil Tax | | Soil Association | | |
| NM632 | 018 | | ECTOR | | ECTOR-ROC | | |

| Date | Range Cond. | Similarity Index | Normal Year Production | Total Production | Running Average Production | Sim Index Allowed Production | Running Average Sim Index Allowed Production |
|------------|-------------|------------------|------------------------|------------------|----------------------------|------------------------------|----------------------------------------------|
| 01/28/1991 | 36.00 | 26.09 | 1,100 | 571.00 | 571.00 | 287.00 | 287.00 |

Production Data For Study Site



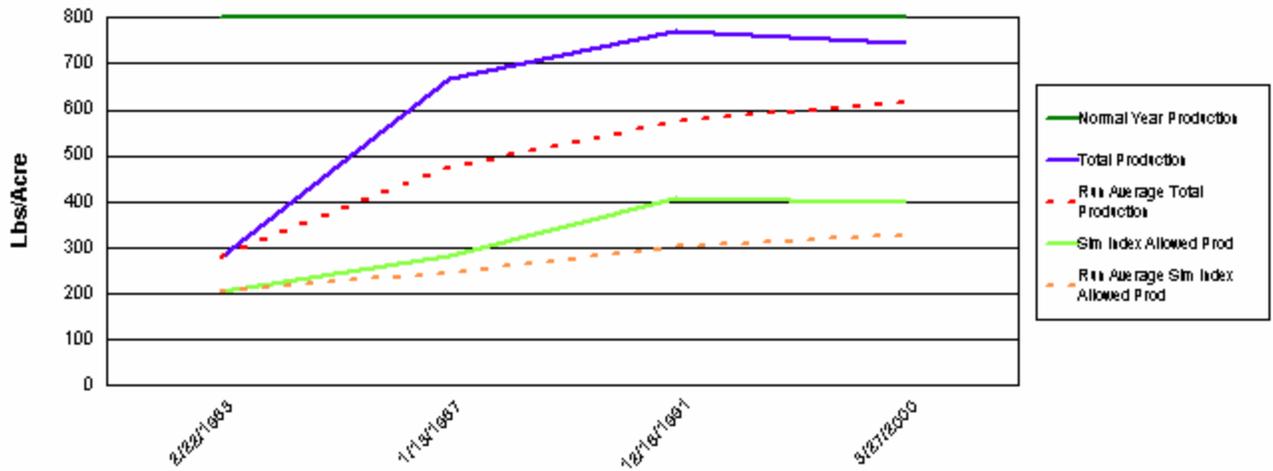
Production (lbs/ac) Data Trends

(Data Extracted From VMAP System)

| | | | | | |
|---------------------------|--------------------------------------|------------------------------|------------------------------------------|-----------------------------------------|-------------------------|
| VEGID: 764 | | | | | Date Printed: 6/26/2006 |
| Allot No. 64560 | Allotment HONDO CANYON SEC 15 | Ecosite ID 070CY107NM | Ecosite Name LIMESTONE HILLS CP-3 | Site Name 64560-NORTH RILEY-F020 | |
| Location: T. 0100S | R. 0190E | Sec. 24 | QtrQt NENW | UTM-N | |
| LINCOLN | County, NM | | | UTM-E | |
| Soil Sur No NM632 | Soil Map Unit 014 | Soil Tax DEAMA | Soil Association DEAMA-ROC | | |

| Date | Range Cond. | Similarity Index | Normal Year Production | Total Production | Running Average Production | Sim Index Allowed Production | Running Average Sim Index Allowed Production |
|------------|-------------|------------------|------------------------|------------------|----------------------------|------------------------------|----------------------------------------------|
| 02/22/1983 | 43.01 | 25.50 | 800 | 276.00 | 276.00 | 204.00 | 204.00 |
| 01/13/1987 | 37.19 | 35.50 | 800 | 668.00 | 472.00 | 284.00 | 244.00 |
| 12/18/1991 | 51.00 | 50.88 | 800 | 772.00 | 572.00 | 407.00 | 298.33 |
| 03/27/2000 | 52.38 | 50.13 | 800 | 744.00 | 615.00 | 401.00 | 324.00 |

Production Data For Study Site



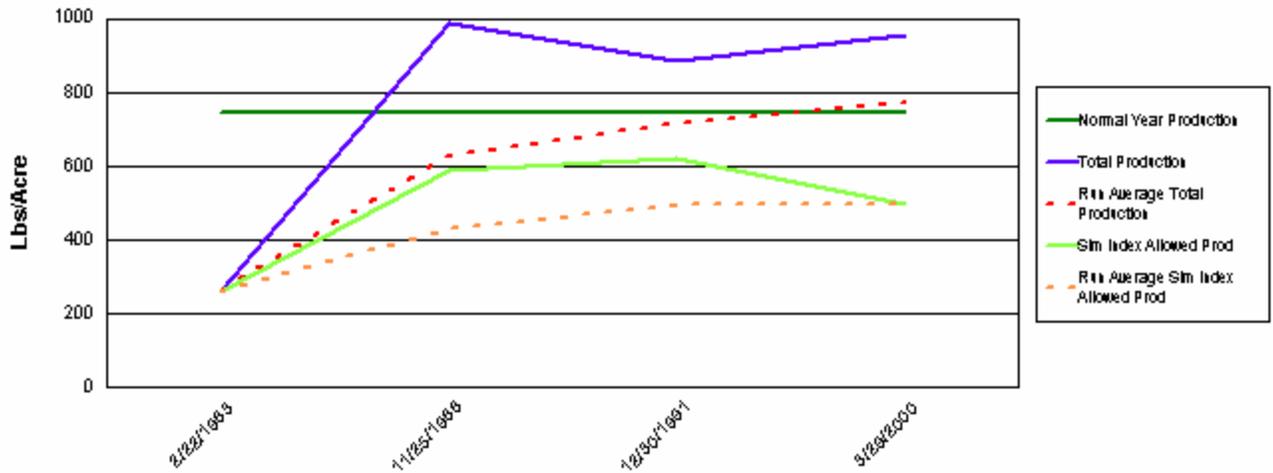
Production (lbs/ac) Data Trends

(Data Extracted From VMAP System)

| | | | | | |
|---------------------------|--------------------------------------|------------------------------|---------------------------------------|-----------------------------------------|-------------------------|
| VEGID: 765 | | | | | Date Printed: 6/26/2006 |
| Allot No. 64560 | Allotment HONDO CANYON SEC 15 | Ecosite ID 070DY158NM | Ecosite Name VERY SHALLOW CP-4 | Site Name 64560-SOUTH RILEY F021 | |
| Location: T. 0100S | R. 0200E | Sec. 29 | QtrQt SENW | UTM-N | |
| LINCOLN | | County, NM | | UTM-E | |
| Soil Sur No NM632 | Soil Map Unit 017 | Soil Tax ECTOR | Soil Association ECTOR-ROC | | |

| Date | Range Cond. | Similarity Index | Normal Year Production | Total Production | Running Average Production | Sim Index Allowed Production | Running Average Sim Index Allowed Production |
|------------|-------------|------------------|------------------------|------------------|----------------------------|------------------------------|----------------------------------------------|
| 02/22/1983 | 84.01 | 34.93 | 750 | 262.00 | 262.00 | 262.00 | 262.00 |
| 11/25/1986 | 65.83 | 79.07 | 750 | 992.00 | 627.00 | 593.00 | 427.50 |
| 12/30/1991 | 74.00 | 83.07 | 750 | 886.00 | 713.33 | 623.00 | 492.67 |
| 03/29/2000 | 61.40 | 66.27 | 750 | 956.00 | 774.00 | 497.00 | 493.75 |

Production Data For Study Site



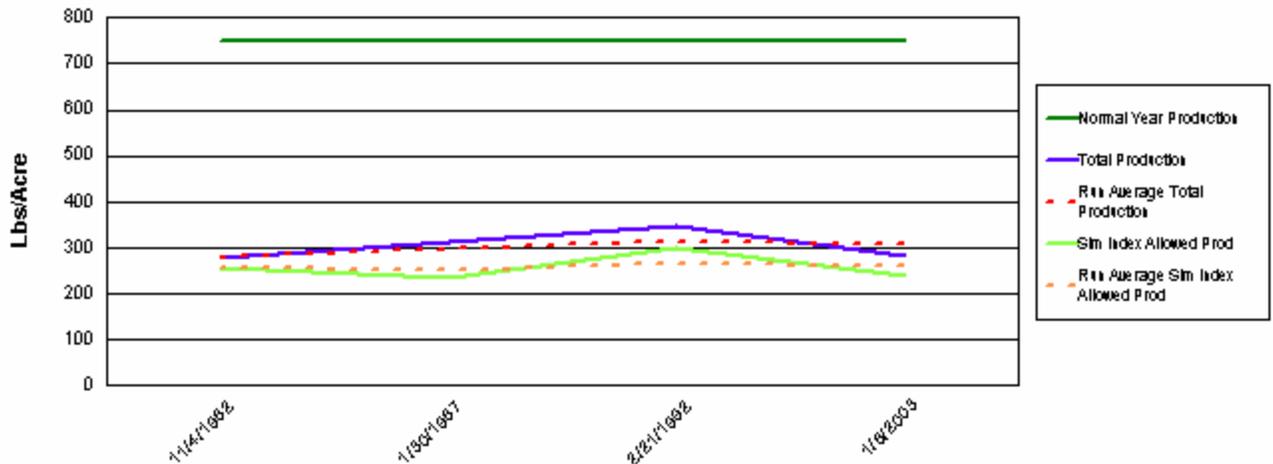
Production (lbs/ac) Data Trends

(Data Extracted From VMAP System)

| | | | | | | |
|--------------------|----------------------|-------------------|---------------------|-------------------|-------------------------|---------------|
| VEGID: | 895 | | Date Printed: | | 6/26/2006 | |
| Allot No. | Allotment | Ecosite ID | Ecosite Name | | Site Name | |
| 64560 | HONDO CANYON SEC 15 | 070DY158NM | VERY SHALLOW CP-4 | | 64560-HILL--F153 | |
| Location: | T. 0110S | R. 0200E | Sec. 08 | QtrQt SENW | UTM-N | 3692956.35634 |
| | LINCOLN | County, NM | | | UTM-E | 502665.19794 |
| Soil Sur No | Soil Map Unit | | Soil Tax | | Soil Association | |
| NM632 | 017 | | ECTOR | | ECTOR-ROC | |

| Date | Range Cond. | Similarity Index | Normal Year Production | Total Production | Running Average Production | Sim Index Allowed Production | Running Average Sim Index Allowed Production |
|------------|-------------|------------------|------------------------|------------------|----------------------------|------------------------------|----------------------------------------------|
| 11/04/1982 | 72.64 | 34.33 | 750 | 276.00 | 276.00 | 257.50 | 257.50 |
| 01/30/1987 | 59.24 | 31.47 | 750 | 314.00 | 295.00 | 236.00 | 246.75 |
| 02/21/1992 | 61.00 | 39.73 | 750 | 346.00 | 312.00 | 298.00 | 263.83 |
| 01/08/2003 | 48.15 | 32.02 | 750 | 282.89 | 304.72 | 240.17 | 257.92 |

Production Data For Study Site



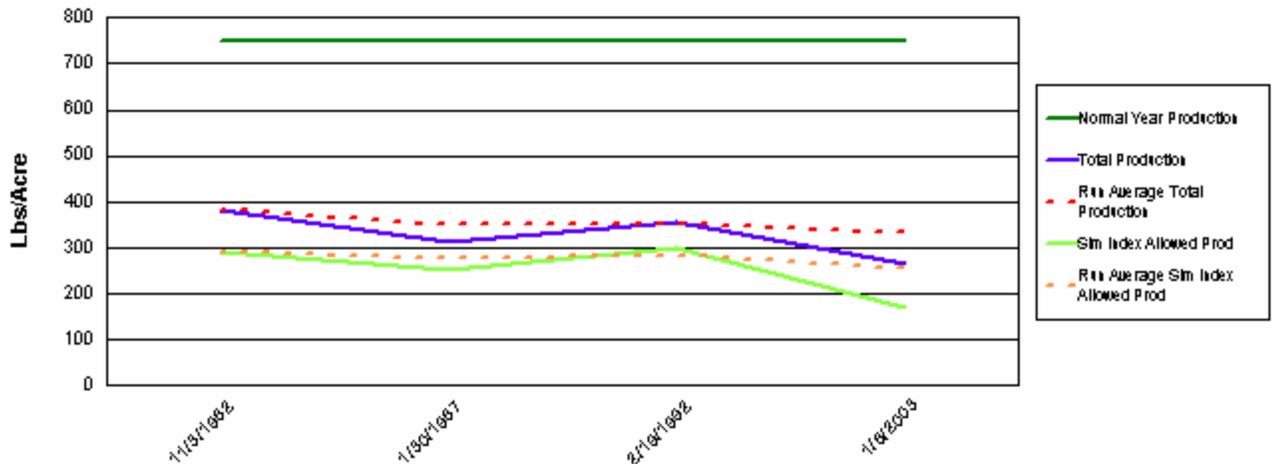
Production (lbs/ac) Data Trends

(Data Extracted From VMAP System)

| | | | | | | |
|--------------------|----------------------|-------------------|---------------------|-------------------------|----------------------|---------------|
| VEGID: | 896 | | | | Date Printed: | 6/26/2006 |
| Allot No. | Allotment | Ecosite ID | Ecosite Name | | Site Name | |
| 64560 | HONDO CANYON SEC 15 | 070DY158NM | VERY SHALLOW CP-4 | | 64560-CHILDRESS-F154 | |
| Location: | T. 0110S | R. 0200E | Sec. 04 | QtrQt NWNE | UTM-N | 3694167.19869 |
| | LINCOLN | County, NM | | | UTM-E | 505798.39303 |
| Soil Sur No | Soil Map Unit | Soil Tax | | Soil Association | | |
| NM632 | 016 | ECTOR | | ECTOR-KIMBROUGH | | |

| Date | Range Cond. | Similarity Index | Normal Year Production | Total Production | Running Average Production | Sim Index Allowed Production | Running Average Sim Index Allowed Production |
|------------|-------------|------------------|------------------------|------------------|----------------------------|------------------------------|----------------------------------------------|
| 11/03/1982 | 60.37 | 39.07 | 750 | 380.00 | 380.00 | 293.00 | 293.00 |
| 01/30/1987 | 60.46 | 33.80 | 750 | 314.00 | 347.00 | 253.50 | 273.25 |
| 02/19/1992 | 65.00 | 39.87 | 750 | 356.00 | 350.00 | 299.00 | 281.83 |
| 01/08/2003 | 44.11 | 22.60 | 750 | 263.00 | 328.25 | 169.50 | 253.75 |

Production Data For Study Site



Traditional Range Condition and Similarity Index Data

VEGID: 142

64560 HONDO CANYON SEC 15

64560-NUNEZ WEST-A142

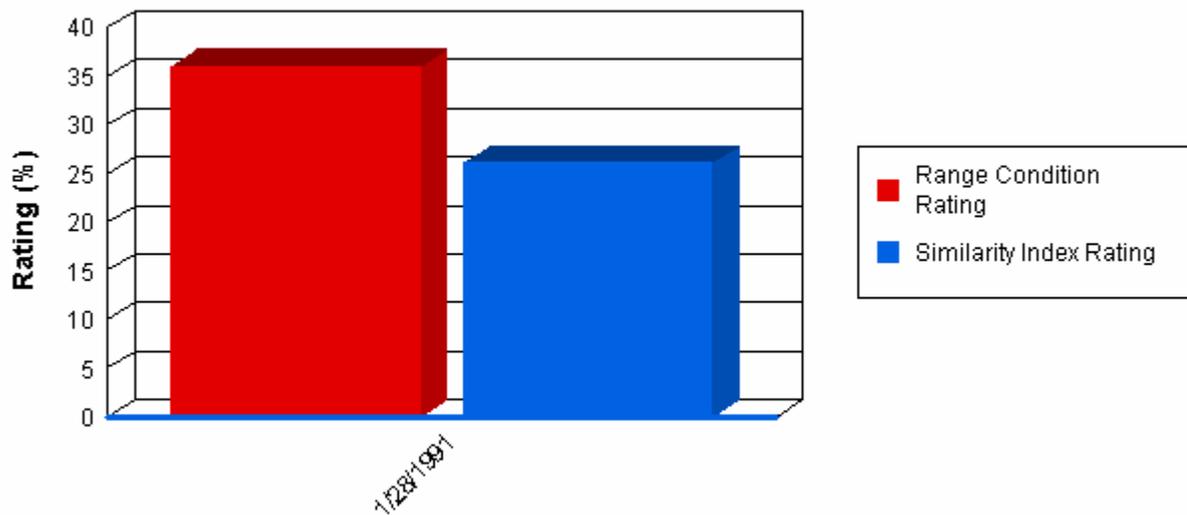
LIMESTONE HILLS CP-4

070DY151NM

| Date | Range Cond. | Similarity Index | Total Production | Normal Year Production |
|------------|-------------|------------------|------------------|------------------------|
| 01/28/1991 | 36.00 | 26.09 | 571.00 | 1,100 |

Traditional Range Condition vs Similarity Index

With Trendlines



Traditional Range Condition and Similarity Index Data

VEGID: 764

64560 HONDO CANYON SEC 15

64560-NORTH RILEY-F020

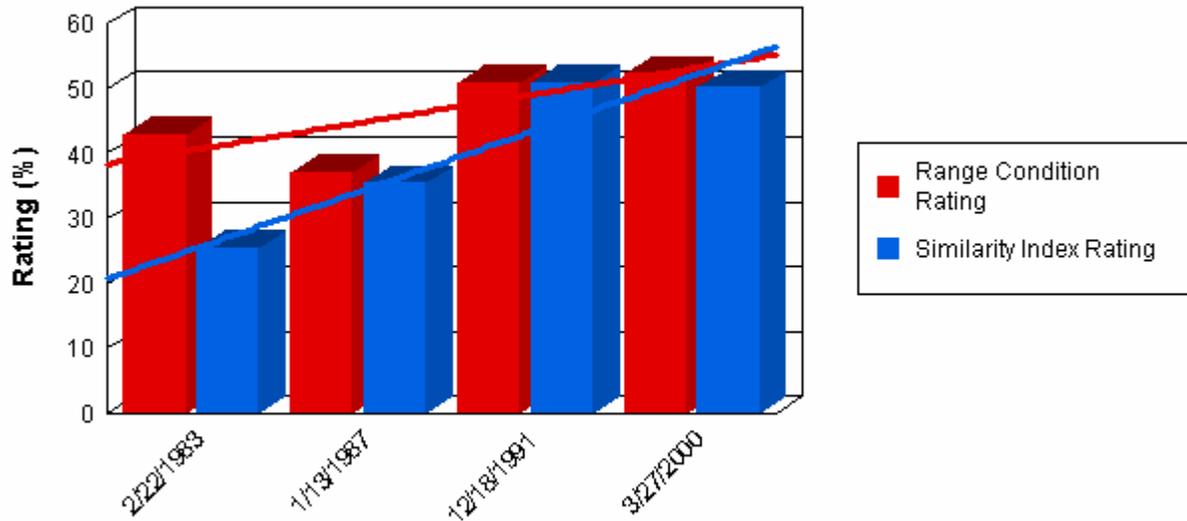
LIMESTONE HILLS CP-3

070CY107NM

| Date | Range Cond. | Similarity Index | Total Production | Normal Year Production |
|------------|-------------|------------------|------------------|------------------------|
| 02/22/1983 | 43.01 | 25.50 | 276.00 | 800 |
| 01/13/1987 | 37.19 | 35.50 | 668.00 | 800 |
| 12/18/1991 | 51.00 | 50.88 | 772.00 | 800 |
| 03/27/2000 | 52.38 | 50.13 | 744.00 | 800 |

Traditional Range Condition vs Similarity Index

With Trendlines



Traditional Range Condition and Similarity Index Data

VEGID: 765

64560 HONDO CANYON SEC 15

64560-SOUTH RILEY F021

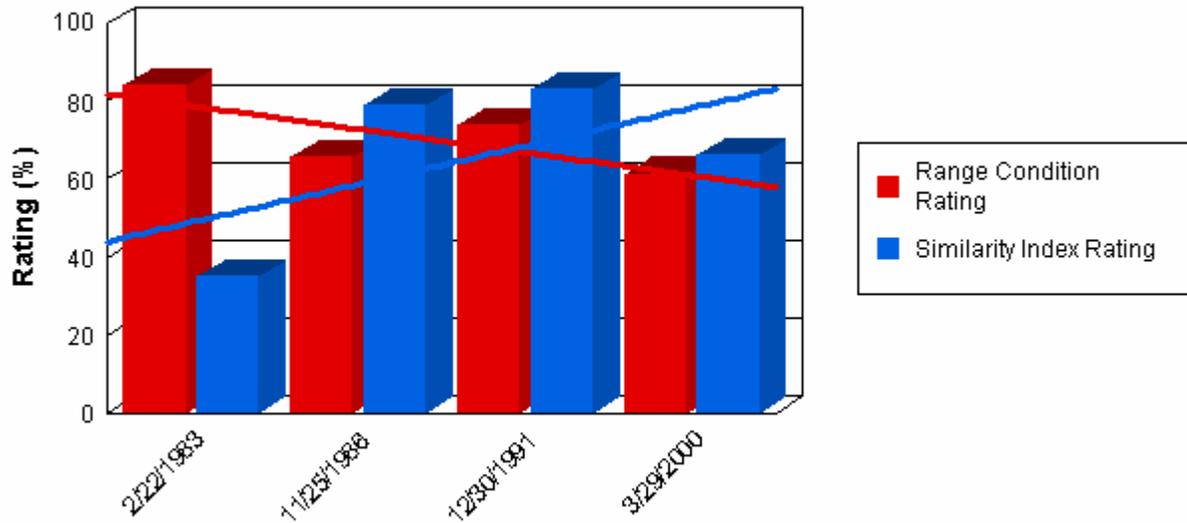
VERY SHALLOW CP-4

070DY158NM

| Date | Range Cond. | Similarity Index | Total Production | Normal Year Production |
|------------|-------------|------------------|------------------|------------------------|
| 02/22/1983 | 84.01 | 34.93 | 262.00 | 750 |
| 11/25/1986 | 65.83 | 79.07 | 992.00 | 750 |
| 12/30/1991 | 74.00 | 83.07 | 886.00 | 750 |
| 03/29/2000 | 61.40 | 66.27 | 956.00 | 750 |

Traditional Range Condition vs Similarity Index

With Trendlines



Traditional Range Condition and Similarity Index Data

VEGID: 895

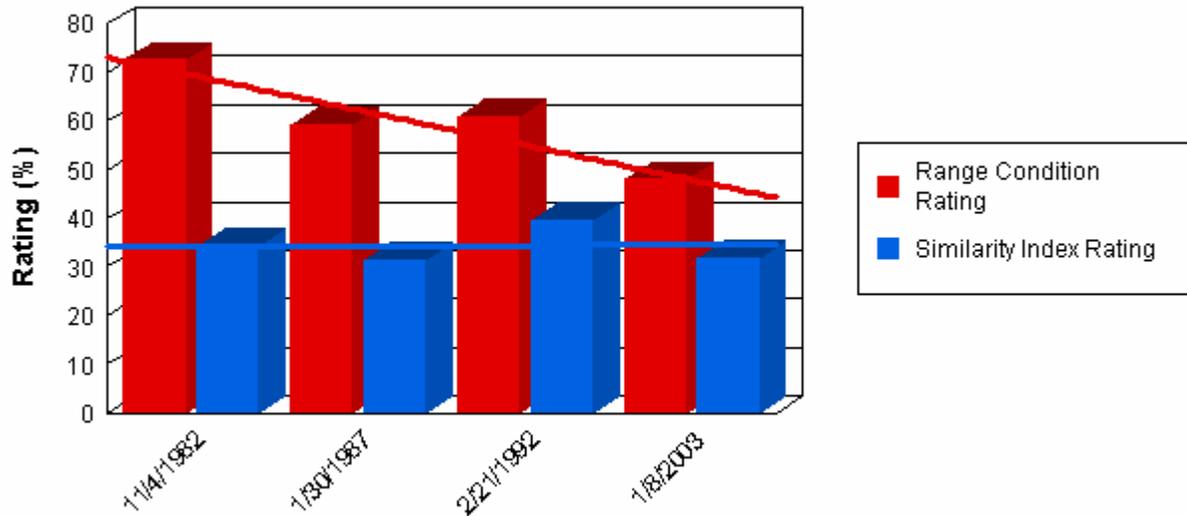
64560 HONDO CANYON SEC 15 64560-HILL--F153

VERY SHALLOW CP-4 070DY158NM

| Date | Range Cond. | Similarity Index | Total Production | Normal Year Production |
|------------|-------------|------------------|------------------|------------------------|
| 11/04/1982 | 72.64 | 34.33 | 276.00 | 750 |
| 01/30/1987 | 59.24 | 31.47 | 314.00 | 750 |
| 02/21/1992 | 61.00 | 39.73 | 346.00 | 750 |
| 01/08/2003 | 48.15 | 32.02 | 282.89 | 750 |

Traditional Range Condition vs Similarity Index

With Trendlines



Traditional Range Condition and Similarity Index Data

VEGID: 896

64560 HONDO CANYON SEC 15

64560-CHILDRESS-F154

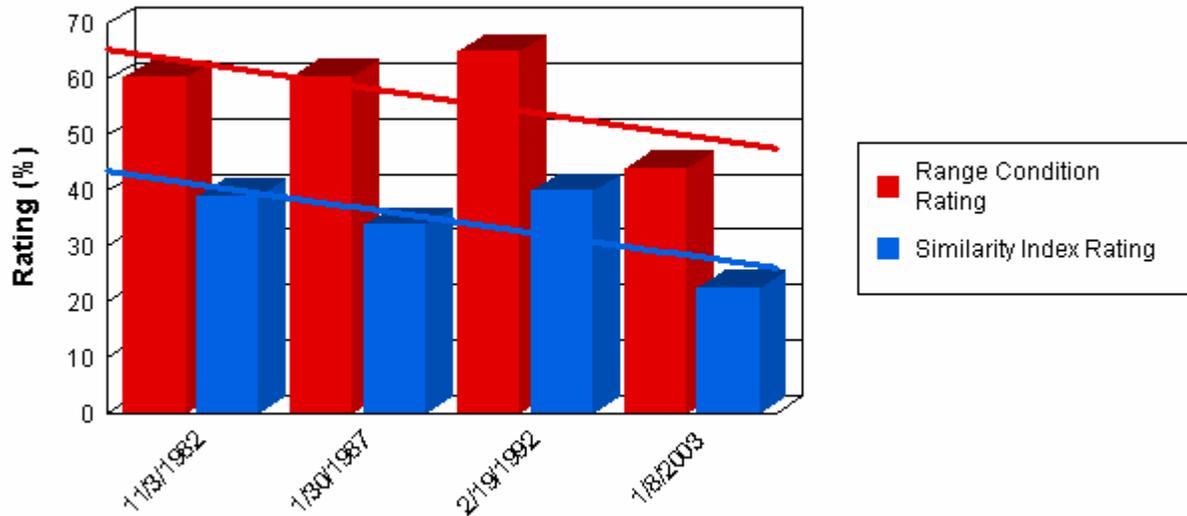
VERY SHALLOW CP-4

070DY158NM

| Date | Range Cond. | Similarity Index | Total Production | Normal Year Production |
|------------|-------------|------------------|------------------|------------------------|
| 11/03/1982 | 60.37 | 39.07 | 380.00 | 750 |
| 01/30/1987 | 60.46 | 33.80 | 314.00 | 750 |
| 02/19/1992 | 65.00 | 39.87 | 356.00 | 750 |
| 01/08/2003 | 44.11 | 22.60 | 263.00 | 750 |

Traditional Range Condition vs Similarity Index

With Trendlines



Allotment Weighted Average Range Condition and Similarity Index

NM06000

Date Printed: 6/26/200

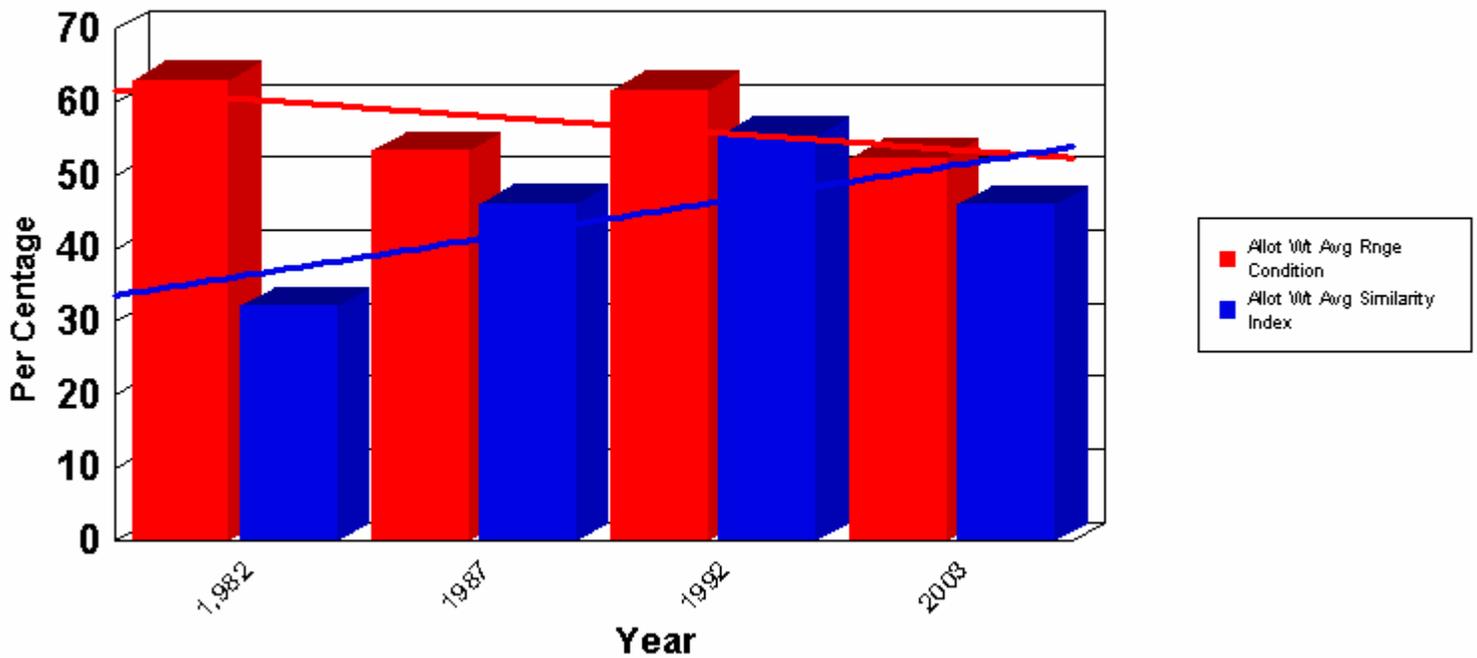
64560 HONDO CANYON SEC 15

Data Information presented below is based on the allotment weighted average of range condition and similarity index ratings for the years included in the allotment monitoring evaluations. The trendline is based on linear regression for each data set.

| Year | Range Condition | Similarity Index |
|------|-----------------|------------------|
| 1982 | 63.04 | 32.19 |
| 1987 | 53.42 | 46.15 |
| 1992 | 61.66 | 55.40 |
| 2003 | 52.52 | 46.02 |

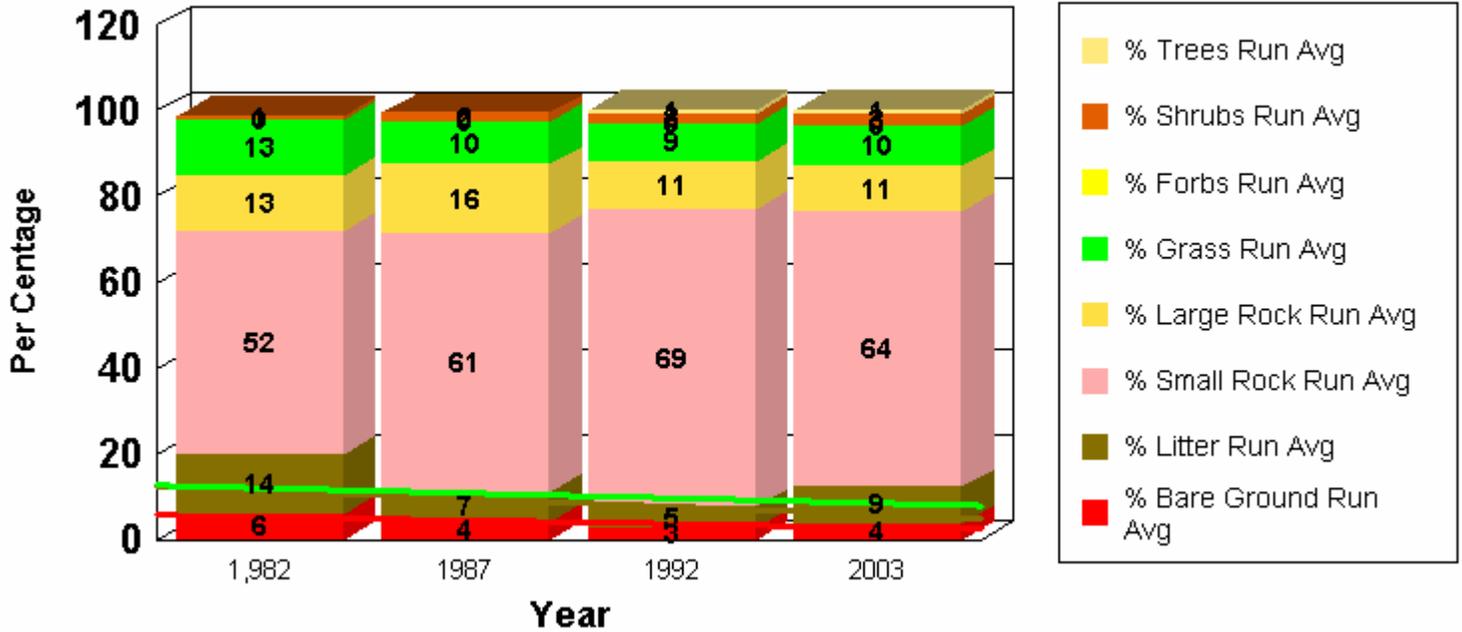
Weighted Average Range Condition vs Similarity Index

With Trendlines



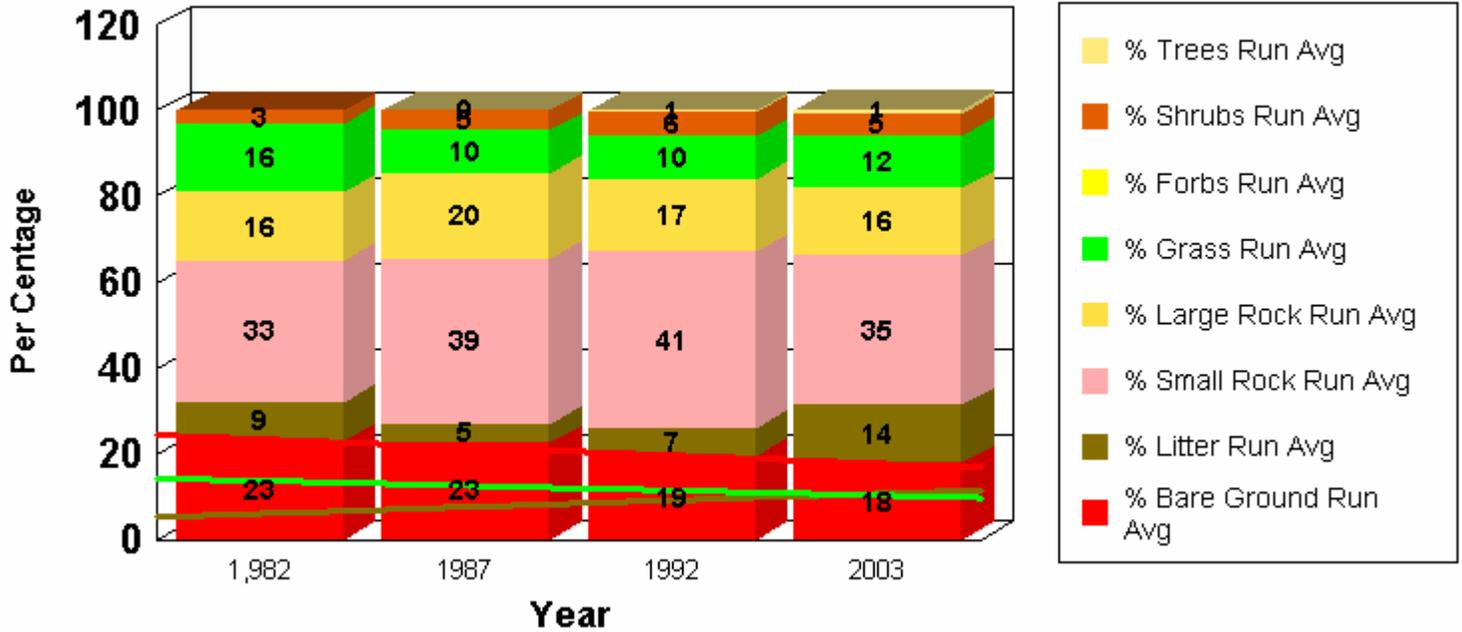
| Year | Bare Ground | Litter | Small Rock | Large Rock | Forbs | Grass | Shrubs | Trees | Running Average Bground | Running Average Litter | Running Average Srock | Running Average Lrock | Running Average Forb | Running Average Grass | Running Average Shrubs | Running Average Trees |
|------|-------------|--------|------------|------------|-------|-------|--------|-------|-------------------------|------------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|
| 1982 | 6.00 | 14.00 | 52.00 | 13.00 | 0 | 13.00 | 1.00 | | 6.00 | 14.00 | 52.00 | 13.00 | 0 | 13.00 | 1.00 | |
| 1987 | 2.00 | 0.00 | 69.00 | 19.00 | 0 | 7.00 | 3.00 | | 4.00 | 7.00 | 60.50 | 16.00 | 0 | 10.00 | 2.00 | |
| 1992 | 0.00 | 1.00 | 87.00 | 2.00 | 0 | 6.00 | 3.00 | 1.00 | 2.67 | 5.00 | 69.33 | 11.33 | 0 | 8.67 | 2.33 | 1.00 |
| 2003 | 7.00 | 19.00 | 49.00 | 8.00 | 0 | 12.00 | 4.00 | | 3.75 | 8.50 | 64.25 | 10.50 | 0 | 9.50 | 2.75 | 1.00 |

Running Average Ground Cover Trends
With Trendlines



| Year | Bare Ground | Litter | Small Rock | Large Rock | Forbs | Grass | Shrubs | Trees | Running Average Bground | Running Average Litter | Running Average Srock | Running Average Lrock | Running Average Forb | Running Average Grass | Running Average Shrubs | Running Average Trees |
|------|-------------|--------|------------|------------|-------|-------|--------|-------|-------------------------|------------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|
| 1982 | 23.00 | 9.00 | 33.00 | 16.00 | | 16.00 | 3.00 | | 23.00 | 9.00 | 33.00 | 16.00 | | 16.00 | 3.00 | |
| 1987 | 22.00 | 0.00 | 44.00 | 24.00 | | 4.00 | 6.00 | 0.00 | 22.50 | 4.50 | 38.50 | 20.00 | | 10.00 | 4.50 | 0.00 |
| 1992 | 13.00 | 11.00 | 46.00 | 11.00 | | 10.00 | 8.00 | 1.00 | 19.33 | 6.67 | 41.00 | 17.00 | | 10.00 | 5.67 | 0.50 |
| 2003 | 13.00 | 34.00 | 17.00 | 12.00 | | 19.00 | 3.00 | 2.00 | 17.75 | 13.50 | 35.00 | 15.75 | | 12.25 | 5.00 | 1.00 |

Running Average Ground Cover Trends
With Trendlines

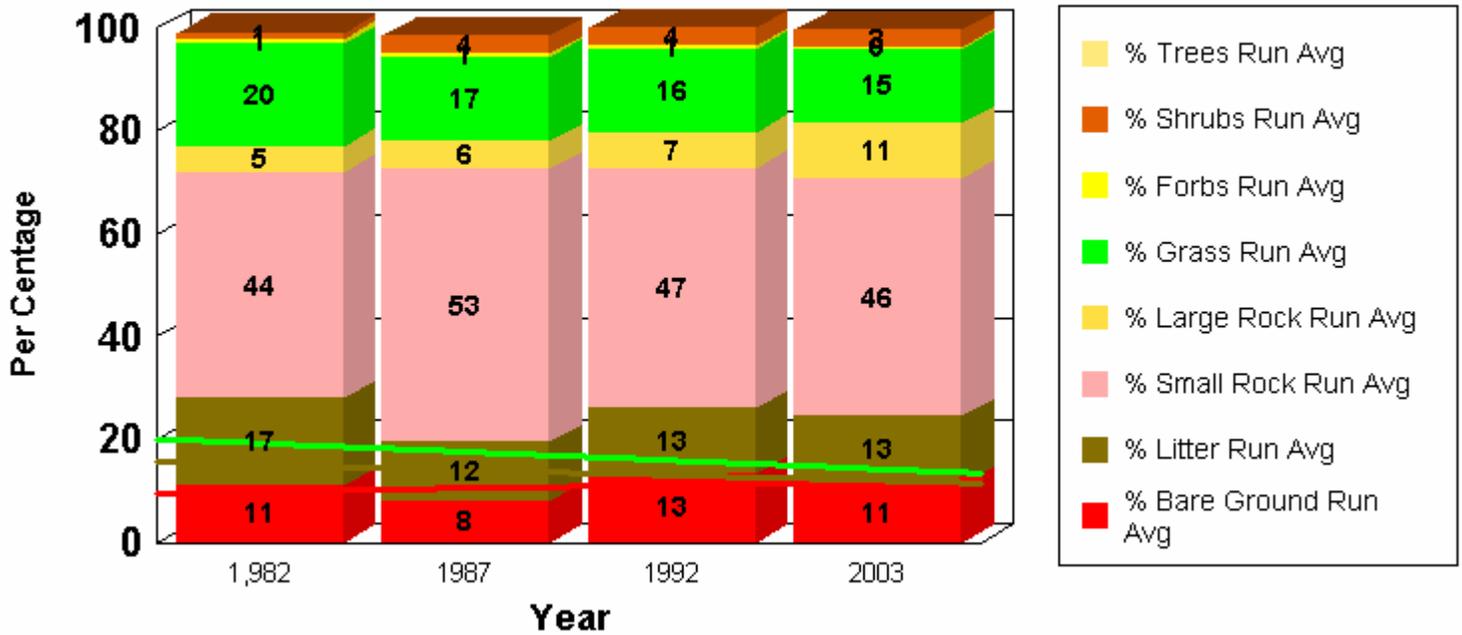


Location: Township: 0110S Range 0200E Section 08 QtrQtr: SENW

| Year | Bare Ground | Litter | Small Rock | Large Rock | Forbs | Grass | Shrubs | Trees | Running Average Bground | Running Average Litter | Running Average Srock | Running Average Lrock | Running Average Forb | Running Average Grass | Running Average Shrubs | Running Average Trees |
|------|-------------|--------|------------|------------|-------|-------|--------|-------|-------------------------|------------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|
| 1982 | 11.00 | 17.00 | 44.00 | 5.00 | 1.00 | 20.00 | 1.00 | | 11.00 | 17.00 | 44.00 | 5.00 | 1.00 | 20.00 | 1.00 | |
| 1987 | 5.00 | 6.00 | 62.00 | 6.00 | 0 | 13.00 | 6.00 | | 8.00 | 11.50 | 53.00 | 5.50 | 0.50 | 16.50 | 3.50 | |
| 1992 | 24.00 | 15.00 | 34.00 | 10.00 | | 16.00 | | | 13.33 | 12.67 | 46.67 | 7.00 | 0.50 | 16.33 | 3.50 | |
| 2003 | 5.00 | 15.00 | 45.00 | 22.00 | 0 | 9.00 | 3.00 | | 11.25 | 13.25 | 46.25 | 10.75 | 0.33 | 14.50 | 3.33 | |

Running Average Ground Cover Trends

With Trendlines

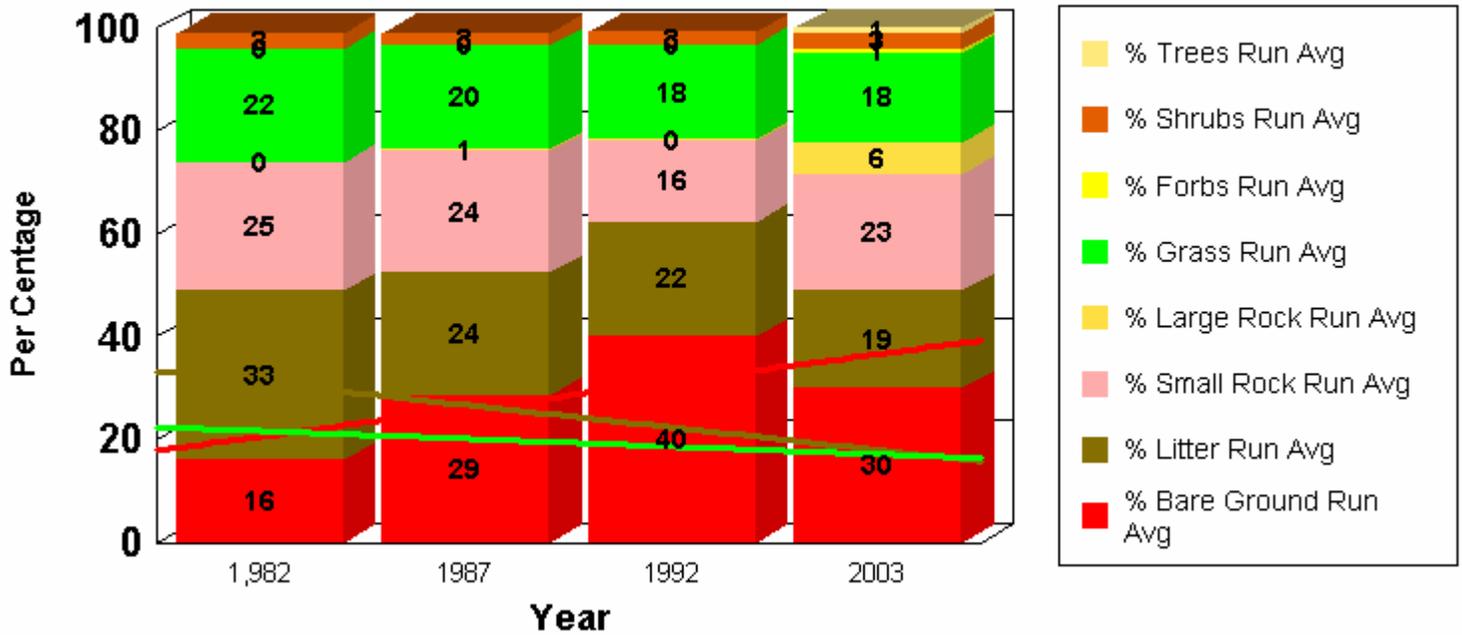


Location: Township: 0110S Range 0200E Section 04 QtrQtr: NWNE

| Year | Bare Ground | Litter | Small Rock | Large Rock | Forbs | Grass | Shrubs | Trees | Running Average Bground | Running Average Litter | Running Average Srock | Running Average Lrock | Running Average Forb | Running Average Grass | Running Average Shrubs | Running Average Trees |
|------|-------------|--------|------------|------------|-------|-------|--------|-------|-------------------------|------------------------|-----------------------|-----------------------|----------------------|-----------------------|------------------------|-----------------------|
| 1982 | 16.00 | 33.00 | 25.00 | 0.00 | 0 | 22.00 | 3.00 | | 16.00 | 33.00 | 25.00 | 0 | 0 | 22.00 | 3.00 | |
| 1987 | 41.00 | 15.00 | 22.00 | 1.00 | | 18.00 | 2.00 | | 28.50 | 24.00 | 23.50 | 0.50 | 0 | 20.00 | 2.50 | |
| 1992 | 63.00 | 19.00 | 0.00 | 0.00 | | 15.00 | 3.00 | | 40.00 | 22.33 | 15.67 | 0.33 | 0 | 18.33 | 2.67 | |
| 2003 | 0.00 | 9.00 | 43.00 | 24.00 | 1.00 | 15.00 | 5.00 | 1.00 | 30.00 | 19.00 | 22.50 | 6.25 | 0.50 | 17.50 | 3.25 | 1.00 |

Running Average Ground Cover Trends

With Trendlines



Literature Citations

New Mexico Water Quality Control Commission. 1994. Water Quality and Water Pollution Control in New Mexico, 1994. NMED/SWQ-94/4. 243 pp.

New Mexico Water Quality Control Commission. 1995. State of New Mexico Standards for Interstate and Intrastate Streams. 20 NMAC 6.1. 51 pp.