



Parks &
Open Space

Agricultural Resources Division



Annual Report

2023 Edition

End of Year Summary

2023 AGRICULTURAL RESOURCES AND WATER RESOURCES STAFF

Michael Foster
Division Manager

Rob Alexander (retired)
Senior Resource Specialist

Barbara Brooks
Administrative Specialist

Cassandra Schnarr
Land & Leases Supervisor

Trent Kischer
Agricultural Resources Specialist

Erin Maier
Grazing Lands Specialist

Jason Sauer
Structures Supervisor

Levi Priest
Agricultural Resources Specialist

Kurt Roy
Agriculture Resources Technician

Amy Schwartz
Senior Resources Specialist

Zach Moran
Agricultural Resources Technician

Stephen Kirk
Agricultural Resources Technician

Darren Beck
Water Resources Supervisor

Chase Dryden
Water Resources Specialist

James McAllan
Water Resources Specialist

Martin Sarley
Water Resources Specialist

Introduction

We are pleased to present the Boulder County Parks & Open Space (BCPOS) Agricultural Resources Division's 2023 Annual Report. The county manages a diversity of operations on its 25,000 acres of agricultural properties, and this report is intended to highlight our key accomplishments while providing a glimpse into the efforts needed to steward these lands.

The pride our staff and producers take in their work and in the opportunity to support the continuing legacy of agriculture in Boulder County is apparent in these pages. This region has a rich history of farming and ranching, and it is an honor to partner with our tenant producers so that we all can benefit from thriving agricultural lands for generations to come.

Parks & Open Space took a significant step forward in 2023 to invest in soil health and a couple of key highlights, including launching a Soil Health Grant program and overhauling the property bidding process to be more transparent and equitable.

Thank you for celebrating with me the achievements of the last year and for taking the time to get to know our staff and their responsibilities through this report.



Division Manager

Agriculture on Open Space By the Numbers

Leases:

- 124 leases
- 59 tenant farmers
- No leases went out to bid
- One operating plan completed

Water:

- County staff currently hold 29 incorporated ditch company board positions.

Lease Type (by gross revenue):

- Cash rent 52%
- Crop share 46%
- Grazing 2%

Organic Farming:

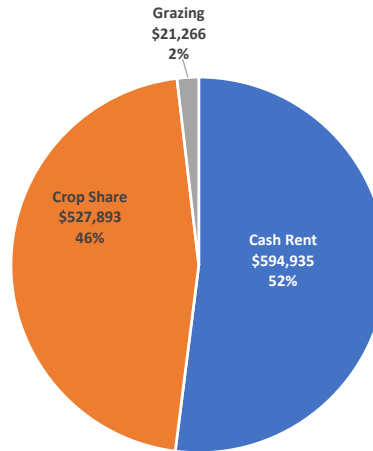
	2021	2022	2023
Total Acres	2,085	2,048	1,744
Certified Organic	1,335	1,192	1,303
Transitioning	527	490	275
Pesticide-Free	223	366	166

Organic acres have decreased over time because some producers are no longer pursuing certification. In 2023, three farms (Burt-ness, Chandler, and Rocky Mountain Fuel 2) achieved organic certification. The drop in “pesticide-free” was because a producer give up the lease on those 200 acres.

2023 Revenue

Agricultural Administration

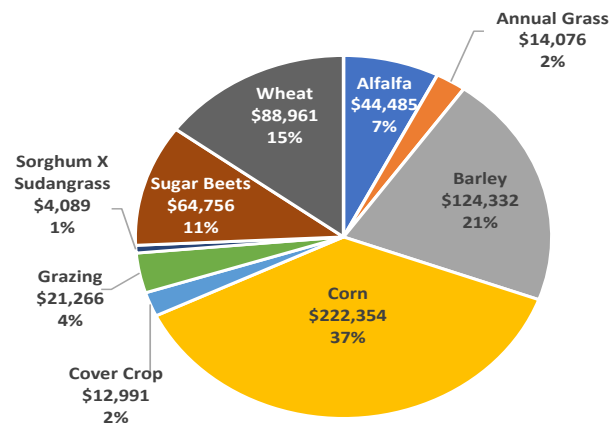
Gross Revenue by Rent Type



The Agricultural Resources Division partnered with 59 tenant farmers on 124 leases in 2023 to manage public land, maintain and improve infrastructure, increase water efficiency through improved water measuring and delivery systems, engage the community in agriculture, and explore opportunities for our producers to meet local demands for food, fiber, forage, and fuel.

Many factors affect revenue, most notably the weather, input costs, and market prices. The 2022/2023 winter was harsh and frigid, with large local snow accumulations, and the mountain snow-pack was very good. When spring finally arrived, we had rain almost constantly into June, which resulted in late planting for spring crops. With all that moisture, most crops had high yields. When the drier conditions arrived, the spring crops were planted and were mostly very successful with a slightly later than normal harvest. Input costs and commodity prices both remained high.

Gross Revenue by Crop



Project Management



Accomplishments:

- Four irrigation ponds reseeded for erosion control.
- One mile of drain tile installed and repaired.
- 1,500 feet of irrigation pipeline, risers, and supplied gated pipeline installed on Bishop. The system supplies water more efficiently to our neighbor to the east.
- Half-mile of fence repaired.
- Five road-to-farm access points repaired and installed.
- Four center pivots constructed.
- 83% of total fences on BCPOS properties inventoried and rated for condition.
- Five miles of linear ditch bank treated organically for weeds and excess vegetation growth.
- 30 loads of road base hauled personally to improve access.
- Five acres of pasture mowed to decrease fire danger





Livestock on Ag Land

Grazing Program Summary

The Agricultural Resources Division manages livestock grazing on more than 12,300 acres of Parks & Open Space properties. In 2023, the grazing program included 28 tenants on 92 properties throughout Boulder County. Our tenants raise a variety of livestock, including domestic cattle, sheep, goats, pigs, horses, and more.

Moving forward in 2024 and beyond, our focus will be on working with our agricultural tenants to develop operating plans that promote sustainable and economically viable grazing practices that benefit wildlife, soil health, water quality, and native plant diversity.

We will work to restore several properties using native plant reseeding and soil health amendments in 2024 and 2025. Additionally, we will collect vegetation and soil health data that will be used as ecological benchmarks for measuring the success of our regenerative grazing program.

Achievements:

- 12,300 acres of managed grazing
- 92 properties
- 28 grazing tenants

2024 and Beyond:

- Virtual Fencing pilot project
- Real-time vegetation and soil health data collection
- Ecological restoration of degraded properties
- Focus on economic viability, including improvements to grazing infrastructure (wildlife-friendly fences, new water facilities, enhanced public safety, etc.)

Water Resources



Accomplishments:

- 36 soil moisture probes installed in support of the Water Use Efficiency & Telemetry project. Center pivot flow meter and soil moisture data can be used by tenants for efficient irrigation practices.
- Ten groundwater wells rehabilitated, abandoned, or improved.
- Delivered Lake 4 water to irrigate new plants at the Niwot Ditch Diversion Reconstruction and Fish Passage Installation project.



Wildlife on Ag Land

Looking out over the open spaces of Boulder County, it's always fun to see the diversity of wildlife in their natural environment; however, when they stray onto agricultural lands, there can be conflict.

We are working to control prairie dog population on agricultural lands in accordance with our Prairie Dog Habitat Element of the Grassland Management Plan. We have a dedicated team constructing barrier fences, trapping and relocating animals, and utilizing lethal control as a last resort.

Summary of Prairie Dog Actions

Challenges in 2023 included frequent machinery breakdowns and the ability to source carbon monoxide cartridges, a major component of which is sourced from Ukraine.

- 1,490 prairie dogs were trapped on 12 properties. 649 of those were donated to the National Black-Footed Ferret Conservation Center, and 841 were donated to the Birds of Prey Foundation.
- 21,510 burrows were treated on 34 properties.
- Two tenants participated in our tenant control program.
- 328 acres were cleared.
- 13,369 feet of barrier fencing/straw bales (951 ft.) were erected on ten properties.
- 3,860 acres of prairie dog colonies were mapped on 98 properties.
- 58 properties were cleared or remained clear of prairie dogs.
- Plague mitigation was done at the South County Grasslands and Ron Stewart Preserve at Rabbit Mountain.



Soil Health & Sustainable Agriculture



Maintaining and improving soil health is essential to ensuring farmers can stay resilient in the face of increasing pressures on land and a changing climate. Healthy soils produce better harvests, meaning farmers can harvest more even on small areas of land, and healthy soils mean healthier crops that are more resilient to extreme weather events.

Soil Health Grants

In 2023, the Agricultural Resources Division launched a soil health grant with the goal of helping producers overcome economic barriers to trying new approaches. More broadly speaking, the county invested in the operational changes we would like to see on our properties, and some of our tenants are taking advantage of that opportunity. Our goal was to fund 10 projects. We funded 19 applications, 18 of which were completed. By that metric, we accomplished our goal.

Below is a summary of the successes achieved during the first year of the program.

Total Award Amount:	\$200,000
Total Funds Distributed:	\$196,250
% of Funds Distributed:	98%
Total Acres Improved:	3,100

Projects funded include: compost, cover crops, mineral balancing, live-stock integration, application of biochar, plant diversity, no-till practice, and hedgerows.



Photo by Michael Cohan

Public Agriculture Tour

On Sept. 9th, we hosted a tour of three different properties featuring organic farming, livestock grazing, and commodity crop production.

Approximately 100 members of the public were in attendance, and the feedback received was very positive. Additional tours will be planned in 2024.



Photo by Kurt Roy



2023 Soil Revolution Conference Highlights:

- 215 in-person registrants with an additional option to attend virtually via live stream.
- 12 BCPOS tenants were in attendance.
- Speaker topics focused on plant diversity and their relation to nutrition for livestock, building soil health with fungal-rich compost, fine-tuning soil health practices and application, building climate resilience with soil health, and farm economics and good financial habits.
- Local project updates from Natural Resources Conservation Service (NRCS), City of Boulder Open Space and Mountain Parks (OSMP), and Zero Foodprint.
- Speakers participated in a roundtable to discuss overarching themes from the day and answered questions from the audience.
- All sessions were recorded and can be viewed on soilrev.org.