



# Grand Junction Compost Program and Farm Trial

---





# Grand Junction Organic Waste Collection and Compost Utilization Study

## PURPOSE

- Determine demand for organic waste collection and establish route density
- Demonstrate need for food waste processing at the local facility
- Illustrate benefits of using compost to promote end market development
- Establish application rate recommendations for local growers





Summit for Recycling - Grand Junction, Colorado - June 2nd-4th, 2025

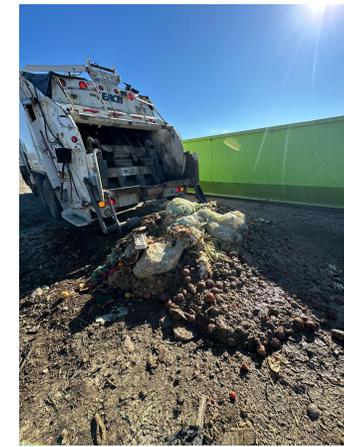


## DELIVERABLES

- Establish **organic waste collection** routes (commercial & residential)
- Implement **school pilot program** with waste audits and custom waste sorting stations in the D51 Schools
- Enhance **education & outreach** with signage, events and communication
- Work with **CSU** & local producers to perform **compost application farm trials** using Mesa Magic compost
- Communicate farm trial results and **market compost sales** to drive end markets and close the loop



# Organic Waste Collection





# Education & Outreach



**Close the Loop Use Local Compost!**

**Ultimate Father's Day Giveaway!**

**DID YOU KNOW**  
Using local compost in your garden or landscape completes the cycle of environmental responsibility and diverts organic waste from our landfill!

**WHERE CAN YOU BUY COMPOST?**  
Purchase local compost at the Mesa County Organic Compost Facility  
970-263-9319

**FEATURING:**  
Dinner at Tequila's Mexican Restaurant  
CJ 75 Autographed Baseball Cap & T-Shirt  
\$50 Gift Card from Souks Bottom Barbeque  
14 day of Puddle Boarding for Dad from CJ Stand Up Paddle  
Spice Gift Box from Blue Heron Gourmet Spices, Coffees & Teas  
Oil Changes from Scott's Auto  
Tire Rotations from Grand Valley Auto  
Compost Totebag from Paradise Venue

Don't miss the chance to make Father's Day unforgettable for the special man in your life.

Listen with your smart speaker, online, or on your radio for a chance to win and create lasting memories with Dad that's limited with June 11. Winners will be chosen on 6/11, June 12.

**Grand Junction**



**CLOSE THE LOOP WITH LOCAL COMPOST!**

Now is a great time to think about compost! Adding local compost to your lawn and garden this season will help insulate roots, retain winter precipitation, and give your depleted soil a boost for a beautiful spring. Seasonal yard waste collected from residents like you is taken to a local compost facility, where it is turned into a finished compost product.

Close the loop and continue to nourish your garden with local compost for a jump start to spring planting.

Purchase local compost at the Mesa County Organic Compost Facility.

3071 US-50, Grand Junction, CO 81503 | 970-263-9319



# Learning to Compost



# Compost Campaign



Now that irrigation systems are fired up for the season, it's a great time to put down a thin layer of compost on your existing lawn to help it thrive. Just rake a thin layer of compost across your lawn and follow with a deep watering. For local compost made from local materials, check out our Mesa Magic product. You can buy it by the bag or truckload at our Organic Materials Composting Facility just north of the landfill.



Support your community by buying local compost! 🏠 It's a small change that makes a big difference for your garden and the planet. ❤️ #BuyLocal #CompostMatters



Kick off August with a greener garden! 🌱 Buy local compost and discover how using it can enhance plant growth, improve soil health, and support sustainable living. #CompostBenefits #GreenGarden



Compost: A Natural Solution for Healthier Soil 🌱 Did you know local demonstration projects have shown that applying compost to achieve 5% organic matter in the soil significantly: ✓ Increases water infiltration rates – helping water reach plant roots more effectively. ✓ Decreases soil compaction – improving soil structure and plant growth. Ready to experience the benefits? Compost is available for purchase! Enhance your soil health, boost water retention, and support sustainable practices today. 📞 Contact the Mesa County Organic Materials Composting Facility at 970-263-9319 for more information on compost sales and recommendations.



# On site farm trials

---



# Compost donations



Summit for Recycling - Grand Junction, Colorado - June 2nd-4th, 2025

# Farm Trail : Peach Orchard



## On site farm trials:

- Established peach orchard (two years)

## Treatments:

- Control - no compost
- Strive for 5 % application rate
- Flat rate (17.3 T/A)
- Top dressed in row



# Farm Trail: Vegetables and Cut Flowers

## On site farm trials:

- 2 cut flower and vegetable sites
- Each site participated for 1 year

## Treatments:

- Control - no compost
- Strive for 5 % application rate
- Flat rate (17.3 T/A)
- 5 T/A & 10 T/A - vegetable 2024
- Treatments rototilled in
  - 2023 no plastic mulch
  - 2024 plastic mulch



# Farm trial: data collection

## Soil:

- Compaction
- Infiltration
- Temperature
- Soil moisture
- Soil nutrients

## Agronomic:

- Peach fruit size
- Flower head size
- Flower plant height
- Flower leaf size



# Farm Trail: Results

## Soil

- Compost applications reduced soil compaction
- Compost applications increased infiltration
- Compost applications increased surface soil temperatures



## Compost Calculator

- Created tool used by Mesa County to help determine customer application rates
- Post application OM levels in Strive for 5 application plots were 5%

## Agronomic

### Vegetables

- Crop losses both years

### Flowers

- Compost applications increased flower head size in both sun flower and celosia crops
- Compost applications increased overall plant height

### Peaches

- Both compost treatments resulted in increased growth rate and larger fruit overall



With the  
pro



the pilot  
hat?





# MESA COUNTY

## SOLID WASTE MANAGEMENT REDUCE • REUSE • RECYCLE

- **Facility Capacity:** 11-acre Class III composting facility composting 45,000 cubic yards of green waste
- **Input:** Residential, landscapers, and commercial (City of Grand Junction)
- **Output:** 30,000 cubic yards of compost and mulch
- **Expansion:** 14-acre permitted addition for food waste and biosolids.





# Mesa County Organic Materials Composting Facility

with Proposed Expansion to the West



Summit for Recycling - Grand Junction, Colorado - June 2nd-4th, 2025

# EXPANSION - BENEFITS

---

- **Accommodate Public Demand**
  - Curbside collection for 38% of homes
- **Accept Additional Feedstocks**
  - Food waste collection for large producers like the school district, hospitals, university
- **Align with State Recommendations (Eunomia, 2024)**
  - Food waste diversion by 2030
  - Green waste ban by 2026
- **Reduce Greenhouse Gas Emissions**
  - 19%-43% reduction (Eunomia, 2024)
- **Increase Climate Change Resiliency (Richardson, 2022)**
  - Enhanced water retention and drought resilience for agriculture
  - Reduce water consumption and farmland salinization

• Eunomia Research and Consulting. 2024. "Colorado Organics Diversion Study." Colorado Department of Public Health and Environment. July  
• Richardson, Jennifer. 2022. "Benefits of Compost Use on Colorado's Cold Desert Agriculture." Master's thesis, University of Denver. November 18



# EXPANSION - CHALLENGES

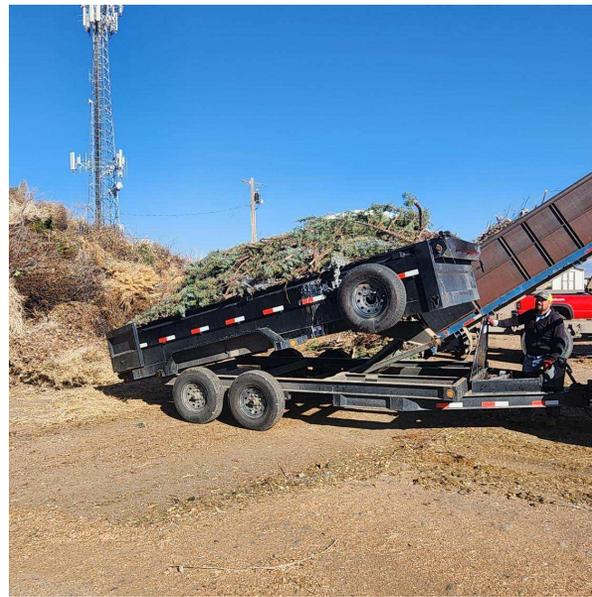
---

- **Cost**
  - \$1.5 million infrastructure investment
  - 50% increase in annual operating cost
- **Funding Structure**
  - Current operation subsidized by landfill tipping fees (50%)
- **End Market Gap**
  - 50% of product not sold
- **Other Considerations**
  - GCCS
  - RNG



# Closing the Loop

Compost is a prime example of closed-loop recycling — local waste is remanufactured into a valuable product and used within the same community.



Summit for Recycling - Grand Junction, Colorado - June 2nd-4th, 2025

# Closing the Loop

- Outreach and Education
  - Tours
  - Community-based education events
  - Advertising
- Community Partnerships
  - Other municipalities
  - Other divisions
  - Private sector



Summit for Recycling - Grand Junction, Colorado - June 2nd-4th, 2025



Summit for Recycling - Grand Junction, Colorado - June 2nd-4th, 2025

# THANK YOU TO ALL THE PARTNERS WHO MADE THIS PROJECT POSSIBLE!!



# Questions?

---

## **Jennifer Richardson**

Solid Waste & Sustainability Division Director  
Mesa County Solid Waste Management  
970.254.4158 | [jennifer.richardson@mesacounty.us](mailto:jennifer.richardson@mesacounty.us)

## **Angela French**

Recycling and Waste Reduction Supervisor  
City of Grand Junction  
970-256-4131  
[angelaf@gjcity.org](mailto:angelaf@gjcity.org)



## **Jeff Pieper**

Extension Area Specialist Commercial  
Horticulture & Natural Resources  
970-244-1850  
[Jeff.Pieper@mesacounty.us](mailto:Jeff.Pieper@mesacounty.us)

## **Shawn Bruckman**

*Soil Health Specialist and Compost Consultant*  
*Certified Compost Operations Manager™*  
(CCOM)  
970.331.2810

