

Campus garden hedgerow to support healthy communities and farming ecosystems

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INTRODUCTION

- Campus community garden, the R’Garden, provides food and learning space for UCR and the local community
- R’Garden aims to promote sustainable farming practices such as hedgerows
- Hedgerows are managed rows of trees, shrubs, forbs, and grasses adjacent to crop systems¹
- Hedgerows provide numerous benefits, including enhanced weed control, erosion control, and supporting beneficial insects such as pollinators and natural enemies of pest insects²
- Installation of a hedgerow could provide platform to engage public



Fig.1. Hedgerows are perennial plant structures that support beneficial insects such as predatory ladybugs, hoverflies and their larvae (photo Morandin et al. 2011).

PROJECT GOALS

- Select hedgerow plants suitable for southern California climate
- Install a perennial hedgerow at the UCR campus garden, the R’Garden
- Implement outreach and extension event on techniques in sustainable farming

REFERENCES

¹Community Alliance with Family Farmers. Hedgerows for California Agriculture: A Resource Guide 2004. p.70.
²Morandin L. et al. 2011. Hedgerows enhance beneficial insects on farms in California’s Central Valley. Calif Agr 65(4):197-201.

PROJECT SUMMARY

- > The UCR R’Garden provides food production and learning space to the Riverside community
- > We installed a 150ft hedgerow containing >20 native California plant species to support beneficial insects such as pollinators and natural enemies of crop pests
- > Hedgerow provides a platform to enhance local outreach and on-campus research on sustainable practices in farming

MATERIALS & METHODS

- Plants were selected using manual “Hedgerows for California Agriculture”¹
- 150ft hedgerow with >20 plant species
- Drought tolerant, California native plants:
 - > Coyote brush (*Baccharis pilularis*)
 - > Buckwheat (*Eriogonum fasciculatum*)
 - > Wild rose (*Rosa californica*)
 - > Desert mallow (*Sphaeralcea ambigua*)
 - > Yarrow (*Achillea millefolium*)
 - > Sage (*Salvia sp.*)
 - > Manzanita (*Arctostaphylos densiflora*)
 - > Elderberry (*Sambucus Mexicana*)
 - > Phacelia (*Phacelia grandiflora*)
 - > California lilac (*Ceanothus thyrsiflorus*)



Fig. 2. Straser preparing to install hedgerow (left) and Cohen watering plants in greenhouse to transplant (right).

RESULTS

- Observed an increase abundance of beneficial insects, including native pollinators and predators
- Held a public workshop and activities on IPM, hedgerow management, and insect ecology
- Workshops included >25 attendees



Fig.3. UCR R’Garden outreach events held during winter quarter.

FUTURE GOALS

- Expand on-farm public outreach and extension events at R’Garden
- Host student-led research projects in sustainable food production
- Monitor hedgerow benefits, including pollinator and natural enemy abundance
- Identify most effective plant species to deliver beneficial services

ACKNOWLEDGEMENTS

