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Farming with Alternative Pollinators (FAP) in oasis

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In oasis palm-tree orchards and small-sized fields provide many different crops and still a good environment for pollinators. Oasis also host many endemic species, which live only here and nowhere else in the world.

For pollinator protection and agricultural productivity it is important to sustain these traditional farming systems and wherever possible to further diversify them. Adaptation to climate change and water scarcity depends on high biodiversity to a high extent.

Enhance the diversity of crops and attract more pollinators to your fields!

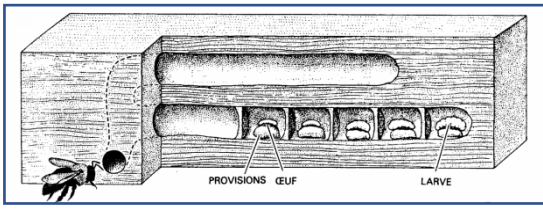
FAP-planting schemes

Protect these effective wild pollinators

Flower-bees pollinate effectively faba bean, vegetables and fruits. They are solitary ground nesting bees. Females dig nests in sandy or clayey vertical banks. The nest is a gallery where the female deposit pollen balls to feed their larvae. Protect these nesting areas to benefit from good pollination service.

Protect these effective wild pollinators

Large carpenter bees pollinate effectively eggplant, cucurbits and okra. They continue to forage even in the warmer days. As they are powerfull foragers, they are able to remove and transpprt pollen with great efficiency. They are solitary cavity nester bees. After winter, they dig tunnels to nest in dead wood. Protect and provide nesting materials to benefit from their excellent pollination service.

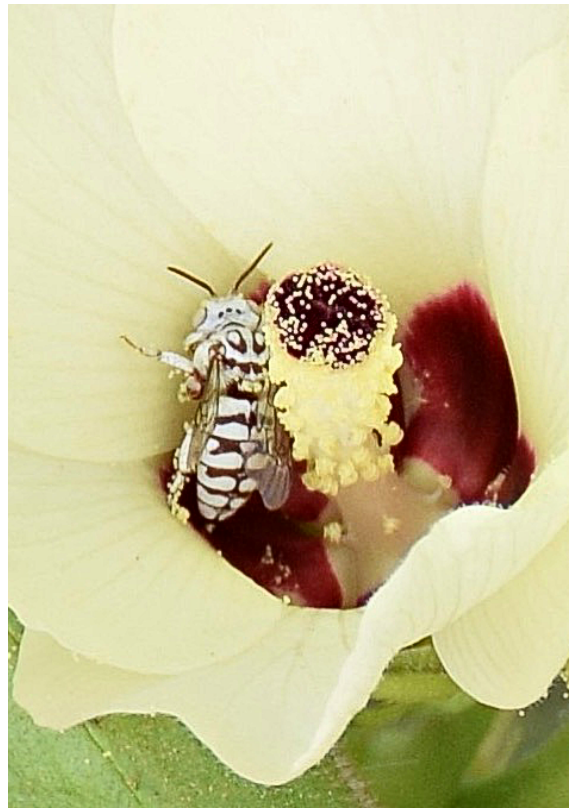


Protect these effective wild pollinators

Banded bees are effective pollinators of cucurbits, okra and vegetables. They are solitary bees that excavate nests in the soil sometimes on flat ground but more often in vertical clay banks. Create areas with bare embankments and protect the offspring from tillage and the harmful farming practices and chemical amendments to benefit from good pollination service.

Protect these effective wild pollinators

Domino bees are effective pollinators of cucurbits, okra and vegetables. They are solitary cuckoo-bees that live in the nests of banded bees. Their presence is an acknowledgement for good farming practice. Supporting the population of all pollinators by all methods leads to increasing presence of domino bees and good pollination service.



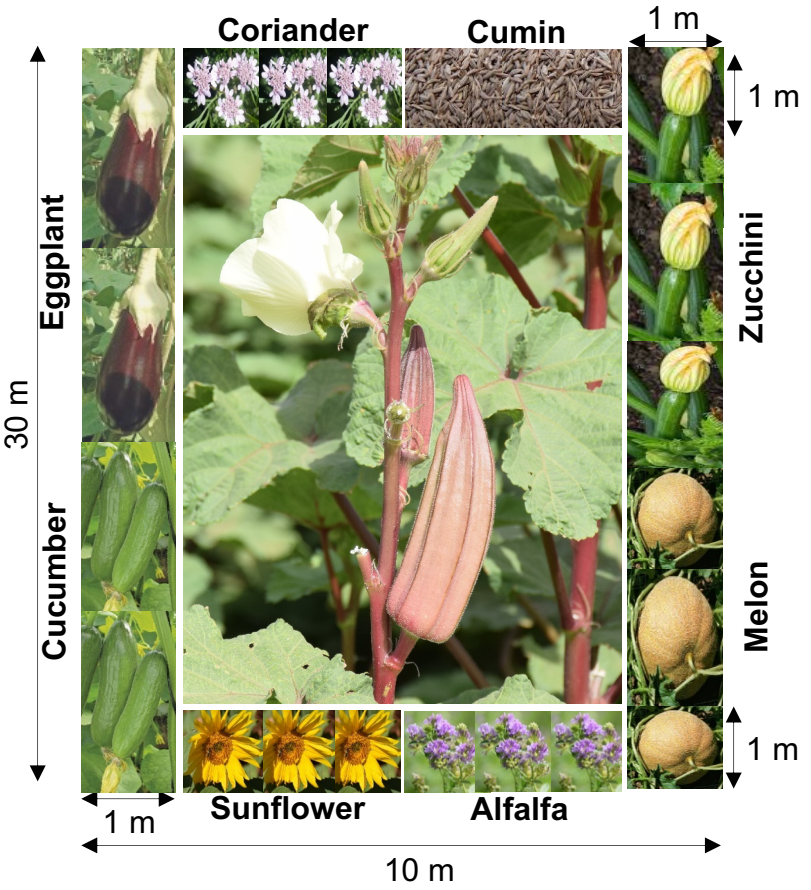
Protect these effective wild pollinators

Furrow bees pollinate effectively cucurbits like melon, zucchini and pumpkin. They are solitary ground nesting bees that establish their nests in soils with mixed clay and sand. Create areas of bare grounds and protect these bees from tillage to benefit from good pollination service.

Protect these effective wild pollinators

Wasps are effective pollinators of cucurbits, okra and vegetables. They are very diverse solitary or social insects. They are predators or parasites of numerous pests. In this way they support additionally plant protection. Most wasps nest in the ground. Be careful not to destroy the nests. Take care and benefit from the double service of wasps.

Marketable habitat enhancement plants to enhance your okra production and have higher income from the entire field



Main crop: Okra

Best responding cultivar: Elisa

Seeding times

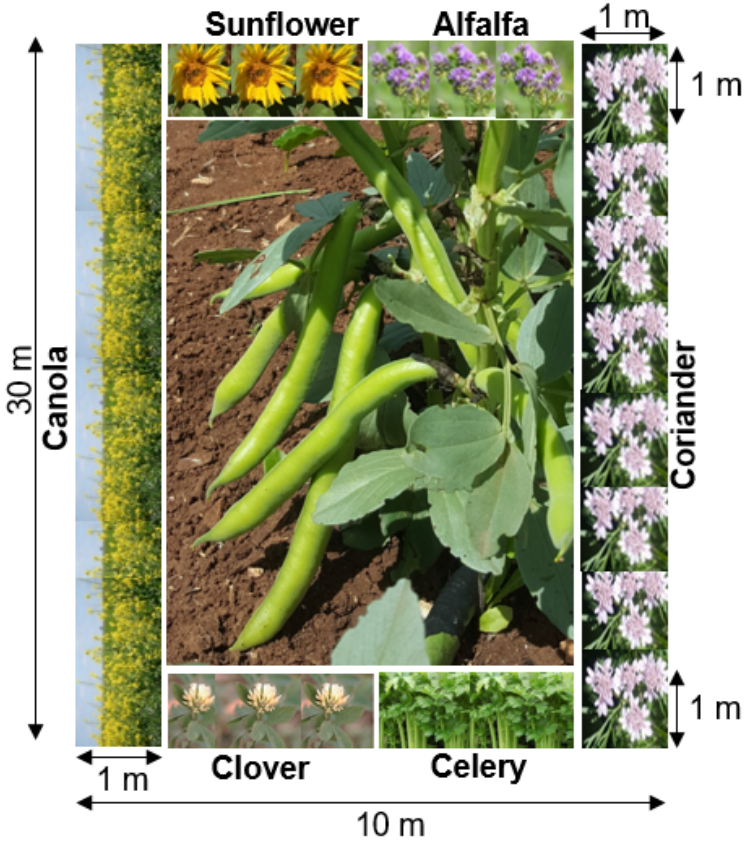
Late February

Coriander, Cumin, Zucchini, Melon, Alfalfa, Sunflower, Cucumber, Eggplant

Late March

Okra

Marketable habitat enhancement plants to enhance your faba bean production and have higher income from the entire field



Main crop: Faba bean

Best responding cultivar: Reina Mora

Seeding times

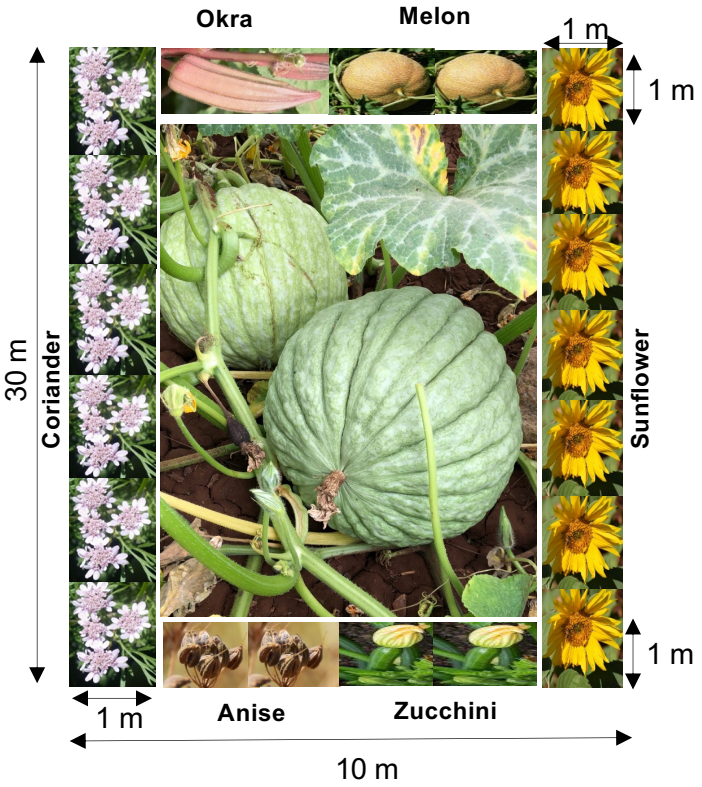
Mid-February

Sunflower, Alfalfa, Coriander, Clover, Celery, Canola

Late February

Faba bean

Marketable habitat enhancement plants to enhance your pumpkin production and have higher income from the entire field



Main crop: Pumpkin

Best responding cultivar: Sbitya (local variety)

Seeding times

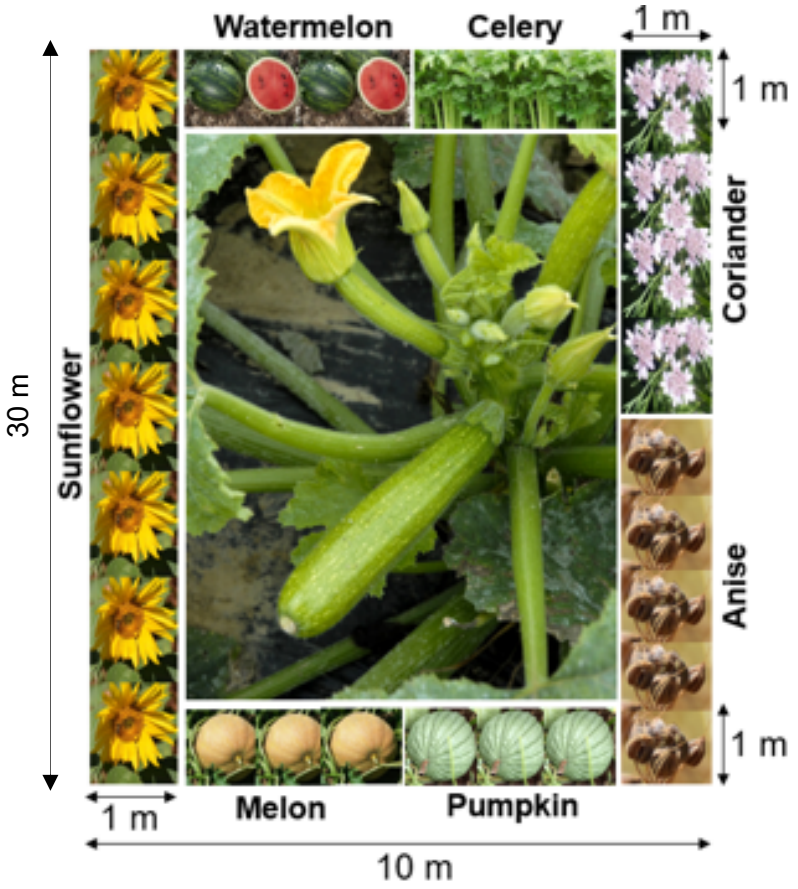
Early May

Anise, Zucchini, Coriander, Melon, Okra, Sunflower

Late May

Pumpkin

Marketable habitat enhancement plants to enhance your zucchini production and have higher income from the entire field



Main crop: Zucchini

Best responding cultivar: Radia

Seeding times

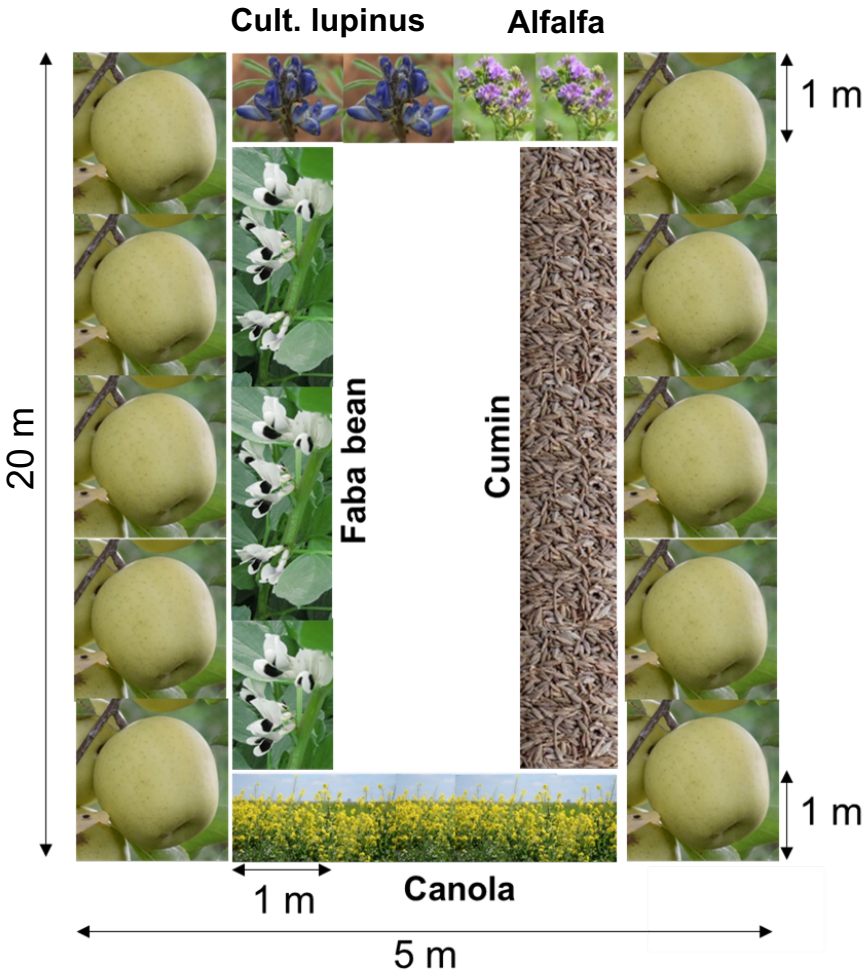
Late May

Sunflower, Watermelon, Celery, Coriander, Anise, Pumpkin, Melon,

Late June

Zucchini

Marketable habitat enhancement plants to enhance your apple production and gain higher income from the entire surface



Main crop: apple

Seeding times

Mid-December

Faba bean, Cultivated lupinus, Alfalfa, Cumin, Canola

In our trials with smallholder farmers in the oasis, FAP farmers working on field crops had on average 88% higher net income per field than control farmers planting only the main crop in the entire field. FAP-farmers including apple producers had a higher number of fruits and often very good quality. Pest abundance was substantially reduced.

Use FAP planting designs and protect pollinators

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