

WORKERS CROPS

2

CHICKPEAS

2

INPUTS

3

YIELD

1

INPUTS

3

SUGAR BEETS

4

INPUTS

6

YIELD

4

INPUTS

3

RAPESEED

3

INPUTS

5

YIELD

3

INPUTS

2

POTATO

2

INPUTS

4

YIELD

3

INPUTS

2

MAIZE

3

INPUTS

4

YIELD

2

INPUTS

2

WHEAT

4

INPUTS

4

YIELD

1

INPUTS



Hiring cost: 1
Salary (every round): 1
Social points (once): +1

DEVELOPMENT CARDS

2

PESTICIDES

DISCARD AFTER USING ONCE

Withstand 1 pest attack event card

or

Apply it during a cultivate step (benefits below)

1 more per harvested field

-2

3

CROP INSURANCE

DISCARD AFTER USING ONCE

Immunity from the impact of 1 event/weather cards

3

FARM MACHINERY

VALID THROUGHOUT THE GAME

Substitute the need for a worker on 1 field for harvesting

-1

TECHNOLOGY CARDS

8

Farm constructed wetlands for water retention

Provides temporary storage and can be used to provide water for irrigation and lower flow peaks.

Requirements: 1 field (Place the constructed wetland field card on 1 field)

Impact (every round) Resistant to drought weather card Environmental score: +1 Social score: +1 Water: +1

0

One-off

1

IMPACT

1

Every round

6

Farm constructed wetlands for nutrient retention

A constructed wetland has the ability to reduce nutrients in the water passing through it.

Requirements: 1 field (Place the constructed wetland field card on 1 field)

Impact (every round): Environmental score: +1 Social score: +1

0

One-off

1

IMPACT

1

Every round

3

Data assimilation system

Physically based models combined with on-site measurements that help predict crop yield and soil water content for climate resilient agriculture and optimizing irrigation schedules

Impact (one-off) Social score: -1

Impact (every round) Pay 1 to see the weather card at the start of the round

1

One-off

1

IMPACT

1

Every round

1

Microfluidic system for nutrient recovery

This innovative solution utilizes microfluidic networks and adsorbent microbeads to recover nutrients from agricultural wastewater.

Impact (one-off) Environmental score: +1 Social score: +1

Impact (every round) Nutrient: +2

1

One-off

1

IMPACT

2

Every round

1

Nano-cellulose membranes for nutrient recovery

Functionalized nanocellulose membranes can take up nitrate and phosphate and can be put back into the soil, thus returning the leached nutrients back for their original purpose, fertilizing.

Impact (one-off) Environmental score: +2 Social score: +1

Impact (every round) Nutrient: +1

1

One-off

1

IMPACT

1

Every round

3

A bio-inspired multi-layer filter system using biochar adsorbents for water and nutrient uptake

A multi-layered drainage system designed to retain water and nutrients from agricultural runoff (overland flow)

Impact (one-off) Environmental score: +1 Social score: +1

Impact (every round) Nutrient: +1 Water savings: 1 (total)

1

One-off

1

IMPACT

1

Every round

4

A filter system for subsurface drainage water treatment using biochar

This technology provides a filter structure that can be inserted to the drainage pipe outlet to retain nutrients from subsurface agriculture drainage water

Impact (one-off) Environmental score: +2 Social score: +1

Impact (every round) Nutrients: +2

1

One-off

1

IMPACT

2

Every round

1

Enhanced water retainer concept

An organic soil conditioner liquid that that can be added to the soil surface to help plants to take-up water, reduce evaporation from bare soils and thus diminish the effects of drought and dehydration

Impact (one-off) Environmental score: +1

Impact (every round) Water savings: 1 per field

1

One-off

1

IMPACT

1

Every round

1

Irrigation management platform

Provides temporary storage and can be used to provide water for irrigation and lower flow peaks.

Impact (once) Environmental score: +1 Social score: -1

Impact (every round) Water savings: 1 per field

1

One-off

1

IMPACT

1

Every round

1

Remotely sensed data for water and nutrient resources management

Increases Farming efficiency by providing real-time information about crop health/status

Impact (every round) Pay 2 to see the event card at the start of the round

1

One-off

1

IMPACT

2

Every round