## **Organic seeds**

Cost: 1 coin

Non-GMO technology

 Earn +1 coin in addition to +2 coins per successful crop at harvest.

Yield total: +3 coins per successful field

**Rule:** Can not use synthetic fertilizers, herbicides, or insecticides on these fields in order for them to produce an organic crop!

# **Hybrid drought-resistant seeds**

Cost: 1 coin

Non-GMO technology

Earn +2 coin in addition to
+2 coins per crop at harvest.

Yield total: +4 coins per successful field

Rule: Survive drought events automatically!

# **Basic GMO technology seeds**

Cost: 2 coins

**GMO traits:** Roundup ready, Bt

- Roundup Ready: ability of crop to withstand Roundup herbicide
- · Bt: plasmid repels insects
- Earn +3 coins in addition to +2 coins per successful crop at harvest.

Yield total: +5 coins per successful field

# **GMO** high-yield seeds

Cost: 3 coins

• Earn +4 coins in addition to +2 coins per successful crop at harvest.

Yield total: +6 coins per successful field

**Rule:** Must use prescription fertilizer with each GMO high-yield seed field for field to be successful!

**Rule:** Use Flex ear corn seeds (successful high-yield) in non-drought conditions only!

## **Basic fertilizer**

Cost: 1 coin total per field

- Standard issue fertilizer (equal amounts N:P:K)
- · Does not require soil testing
- Earn +1 coin in addition to +2 coins per successful crop at harvest.

Yield total: +3 coins per successful field

**Optional penalty:** If you use basic fertilizer in the same field for 3 years in a row, you are penalized 1 coin per round for water quality pollution!

## **Prescription fertilizer**

Cost: 2 coins total per field

- Synthetic fertilizer blend for precision ag equipment
- Sales agronomist reviews soil samples to determine the exact amounts of fertilizer needed for crop production per field.
- Earn +3 coins in addition to +2 coins per successful crop at harvest

Yield total: +5 coins per successful field

**Rule:** must soil test to create fertilizer prescription for successful field!

#### **Natural fertilizer**

Cost: 1 coin total per field

 Livestock manure or composted fertilizer

Yield total: +2 coins per field

**Rule:** Earns +2 coins regardless of field success to reward sustainability and soil regeneration!

#### **Basic herbicide**

Cost: 1 coin total per field

- Roundup herbicide
- Removes weeds from field to reduce competition.
- Earn +2 coins in addition to +2 coins per successful field at harvest.

Yield total: +4 coins per successful field

Rule: Seeds must have GMO seed technology!

#### **Basic insecticide**

Cost: 1 coin total per field

- Protects field from insects.
- Earn +2 coins in addition to +2 coins per successful field at harvest.

Yield total: +4 coins per successful field

## **Biological pest control**

Cost: 1 coin total per 2 fields

 Employ ladybugs or other natural solutions to protect 2 fields from all pests.

Yield total: +4 coins per 2 fields

**Rule:** Reward for environmentally sustainable product, earn 2 bonus coins regardless of field success!

**Rule:** Can not be used with chemical pesticides!

## Soil testing

Cost: 3 coins total for all fields

- Soil nutrient testing per field to determine the necessary fertilizer needed to grow a successful crop.
- One-time purchase for all fields.

**Rule:** Reduce prescription fertilizer cost per round by 1 coin per field!

#### **Microbials**

Cost: 3 coins total for all fields

- Help protect crops from weed or insect pests and disease.
- Enhance plant productivity.
- · Per-round purchase.
- Earn +1 coin in addition to +2 coins per successful field.

Yield total: +3 coins per successful field

### **Cover crops**

Cost: 2 coins total for all fields per round

- · Prevents soil erosion.
- Increases water absorption during bad weather events.
- Increase soil structure and soil biodiversity.
- Increases soil temperature in the spring for planting success.

**Rule:** Gain +1 coin per field for annual carbon sequestration for ecosystem services regardless of success!

### **Tiling**

Cost: 4 coins total for all fields

- Installs water drainage tile in all fields to reduce water accumulation in fields.
- · One-time purchase.

**Rule:** Protects all fields from flooding permanently!

#### **Irrigation system**

Cost: 4 coins total for all fields

- Permanently protects all fields from drought.
- Consumes a high volume of water.
- · One-time purchase.

Yield total: +4 coins per 2 fields

**Rule:** Automatically makes all fields successful when rolling a 1 or 2 or experiencing a drought event card!

**Optional penalty:** If you use regular irrigation for 3 years in a row, you are penalized 2 coins for high volume water usage!

### **Crop insurance**

Cost: 3 coins total for all fields

· Per-round purchase.

**Rule:** Refunds 2 coins for each failed field this round!

## Sales agronomist

- Expert: The sales agronomist must help each farmer to understand the costs/rules and benefits of each product or service sold.
- Negotiation: Let the sales agronomist player negotiate deals to add a social/roleplay element!
- Flexible Pricing: Sales agronomist can offer discounts to each farmer or adjust prices based on demands to encourage purchases.
- Bundling: Sales agronomist can create product bundles (e.g., seeds, fertilizer and herbicide for 5 coins, etc).