NNF: Game Design Document

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High Concept

You are a sprite that owns a derelict restaurant in the middle of a forest! Can you restore it?

Tame wild animals, farm, forage, and sell your food in this procedurally generated world! Every animal and vegetable is procedurally generated and unique to your world!
Cows with honey milk? Sure thing! Fruit that tastes like candy? Yep! Chickens with chocolate meat? No problem! Combine these wacky ingredients to make all sorts of dishes that are unique to your world!

Key Features

- Every plant farmable! You can harvest plants in the wild and cultivate them on your farm.
- Modular cooking - much like in real life, you can make flour from every type of grain, harvest milk from different mammals, or even make vegetable milk from certain plants! Recipes use general types of food as ingredients, not specific foodstuffs, so you can mix and match to make dishes truly unique to your world!

- Complex food characteristics, such as taste and texture, and an interesting cooking system where mixing things together will combine or nullify different tastes and textures.
- Feed the townies who sometimes visit your neck of the woods and get rewards for making their favorite dishes!

Examples of procedurally generated fruits and vegetables (along with a cross-section view of them to see what they look like on the inside). Each has different properties and qualities.
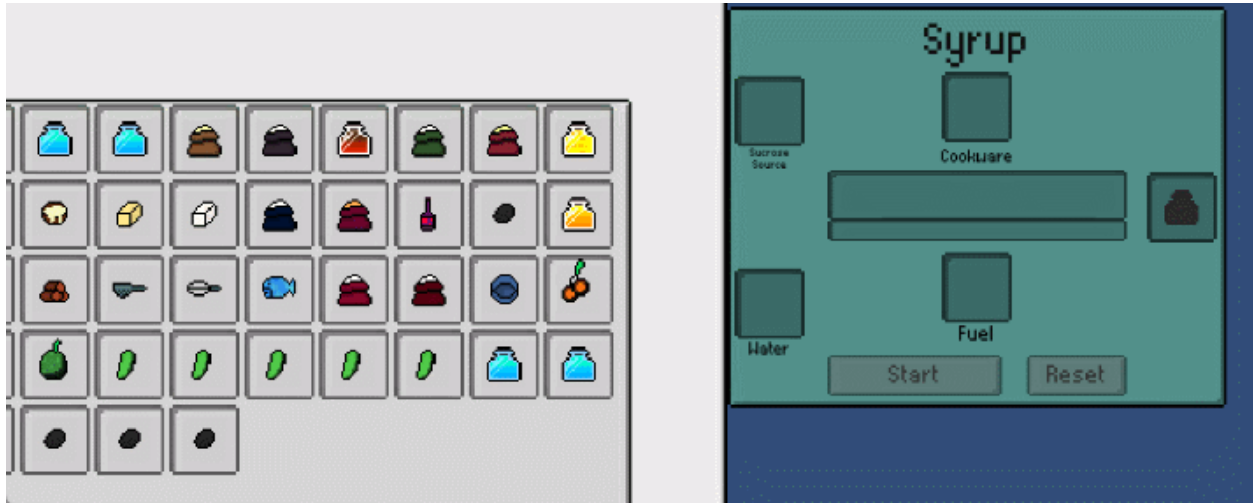
Making syrup from sucrose-containing, procedurally generated "Qoqo Fruit", and making Qoqo sugar from the syrup!

Farming

Mechanic Undefined

Mining

Mechanic Undefined

Fishing

Mechanic Undefined

Foraging

Mechanic Undefined

Digging

Mechanic Undefined

Locations

 The world is procedural, made from randomly generated chunks. Each part of the world can have different types of animals and resources to be found. Certain parts of the world guarantee a certain ingredient of a certain flavor can be found there - volcanos will certainly have some type of spicy plant (or perhaps even an animal with spicy meat).
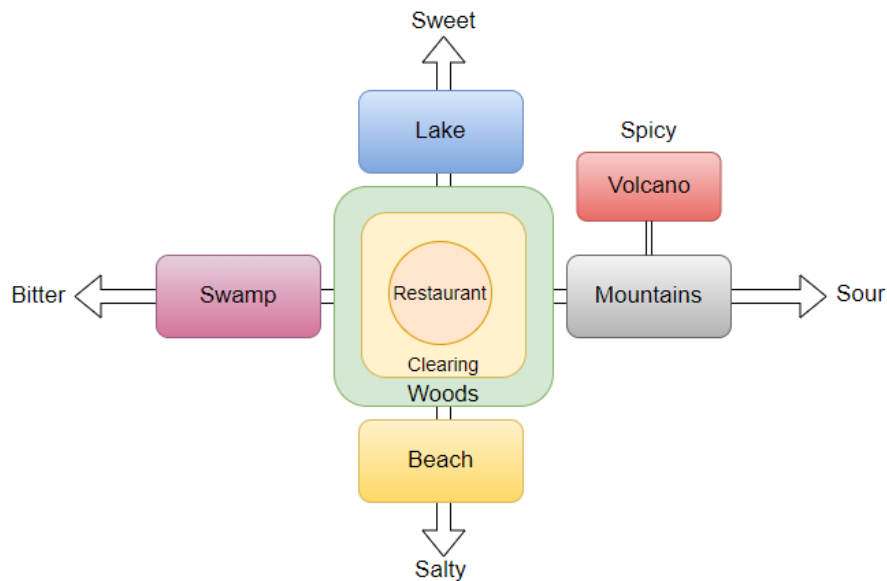
The restaurant

This is your home base of operations, where you cook and farm and serve the townies who happen to be passing by.

Woods

Undefined

Swamp

Undefined

Beach

Undefined

Mountains

Undefined

Food

Every item and food uses JSON to store the data properties that it contains.

Ingredient and dish Traits

Temperature

Albeit most dishes average to an overall temperature feel (and oftentimes this feel doesn't even classify as a special trait):

- Absolute Zero: Unnaturally cold. Like a magic ingredient that freezes everything it touches.
- Frozen: Completely frozen over. (e.g.: Ice cubes)
- Ice Cold: Very cold, but not to the point where it's frozen. (e.g.: A can of soda taken out of a freezer if left for a few minutes)
- Cold: Chilled but not too much. (e.g.: A fruit straight out of a fridge)
- Ambient: Ambient temperature. Anything left out of a fridge or stove.
- Warm: Heated up but not too much. (e.g.: Freshly made bread)
- Hot: Hot to the touch, as in, hurts if you touch it. (e.g.: A fried steak right out of the pan)

- Scorching: Extremely hot, to the point you can't even touch it. (e.g.: Deep fried chicken straight out of the frying pan)
- Blazing: Unnaturally hot. Like a dragon egg or something.

Size

Refers to the physical size of the ingredient.

- Tiny: The size of a corn kernel. If not the largest size of the ingredient, called "bits". *(e.g.: grape bits).*
- Small: The size of a grape. If not the largest size of the ingredient, called "slices". *(e.g.: apple slices).*
- Medium: The size of an apple. If not the largest size of the ingredient, called "pieces" *(e.g.: melon pieces).*
- Large: The size of a melon. If not the largest size of the ingredient, called "chunks" *(e.g.: watermelon chunks).*
- Huge: The size of a watermelon

Type

The general category that food or ingredient is in.

- Misc
- Meat
- Bone
- Milk
- Egg
- Plant
- Leaf
- Stalk
- Seasoning
- Fruit
- Berry
- Vegetable
- Root
- Drink
- Syrup
- Cream
- More to come

State

The physical state the food or ingredient is in.

- Solid (banana, steak)
- Liquid (fruit juice, oil)
- Gas (carbon dioxide)

Tags

Refers to many traits that the ingredient can have. Generally speaking. Mixing two ingredients together will merge their tags.

- has_gluten (if you mix an ingredient with gluten to a dish with no gluten, the whole dish gets the tag "has_gluten")
- gluten_free : gets removed if mixed with a "has_gluten" tag
- Dairy: contains any form of dairy
- Animal_byproduct: whenever you do any action related to an animal (butchering, milking), the ingredient gets the tag animal_byproduct.
- vegan: present if the recipe has no animal products whatsoever. Disappears as soon as the recipe contains any of the tags "meat", "dairy", "egg" or "animal_byproduct", "animal_oil"
- vegetarian: present if the recipe has no meat
- vegetable_oil
- animal_oil

Calories

The number of calories of that ingredient. Additive operations combine the calories of the ingredients.

Texture

Indicates how the dish feels when you're biting and chewing it.

- Liquid: requires no biting but does not hold its form (e.g. drinks)
- Paste: requires no biting but holds its form (e.g.: milkshake)
- Chewy: Feels soft when chewing (e.g.: boiled egg)
- Soft: Requires little to no force to take a bite (e.g.: tomatoes)
- Crisp: Feels hard when chewing (e.g.: dry crackers)
- Hard: Requires a huge force to take a bite (e.g.: candy, ice)

Juiciness

Refers to how much liquid the dish releases upon eating.

- Juicy: Mostly liquid, usually flavored (e.g.: watermelon)
- Oily: Contains lots of fat or oil on the outside of the food (e.g.: butter)
- Normal: Doesn't feel dry, but doesn't feel juicy as well. (e.g: Apple)
- Dry: Bone dry. (e.g. toast, crackers)

Feeling

Indicates how the mouth and taste buds react to the chemicals from the dish.

- Spicy: Gives a burning sensation
- Fizzy: Gives a tingly sensation
- Popping: Gives a popping sensation
- Numbing: Gives a numbing sensation
- Astringent: Gives an unpleasant, mouth-sealing sensation

Taste

- Bland (e.g.: Water)
- Weird (e.g.: A pear, fish, and lime smoothie)
- Nasty (e.g.: A rotten egg)
- Umami (e.g.: Shiitake Mushrooms, tomatoes)
- Sweet (e.g.: Sugar)
- Salty (e.g.: Salt)
- Sour (e.g.: Lime, pineapple)
- Bitter (e.g.: Orange Peel)

Taste works with a number system. Essentially, each taste contains a counter. If you add sugar to a dish, for instance, it increments the "Sweet" counter by one.

Bland, Weird, Nasty, and Umami tastes are boolean and not incremental, meaning that they either are or aren't.

- If the dish is bland, every other counter is set to 0.
  - Alternatively, if there's a counter that is greater than 0 and is not bland, the bland counter is set to 0.

- The number of counters it has that are greater than 0 defines the taste.
  - Counter at 1: "Slightly". (e.g.: Slightly Sweet Pie)
  - Counter at 2: No prefix. (e.g.: Salty Dough)
  - Counter at 3: "Very". (e.g.: Very sour candy)
  - Counter at 4 or more: "Extremely". (e.g.: Extremely bitter soup).
- Ingredients need to have a taste of two or more to transfer one to the recipe's taste counter it's being added to, unless the recipe is bland.
  - If you add an apple (Sweet: 1) to a recipe, the target recipe stays unchanged.

- - If you add sugarcane (Sweet: 2) to a recipe, the recipe will get one sweet counter.
    - If you add sugar (Sweet: 3) to a recipe, the recipe will get two sweet tags, and so on.
  - If the recipe has two tastes at the same value, it will get an "X & Y" taste. Examples:
    - Sweet & Sour
    - Bitter & Salty (Slightly)
    - Bitter & Sweet (Extremely)
  - If the recipe has two tastes, and they are of different intensities, it will get a "Prefix X & Prefix Y" taste. Examples:
    - Very bitter & Slightly Sweet
    - Sweet & Slightly Sour
  - If the recipe has at least 2 in each taste, it will get a "weird" taste and all counters will be set to 0.
  - If the recipe rots, or if it gets combined with a "Nasty" ingredient, it will itself become "Nasty" and all other counters will be set to 0.
  - A recipe won't change its taste anymore if any of these conditions are met:
    - If any of its tastes reach 4 or more.
    - If it has a weird taste of 1 or more.
    - If it has a nasty taste of 1 or more.
  - Adding a weird or nasty taste to any recipe will turn all tastes to 0, and increase the respective (weird or nasty) taste to 1.

Fermentability

A percentage defining the levels of yeast the ingredient has. Changes how much yeast is produced when fermented.

Exotic Contrasts

Good cooking depends on fresh ingredients and solid knowledge. But great cooking is an art born from experimentation and boldness.

Contrasting refers to the skill of matching opposite tastes or traits to create unique, hard-to-conceive culinary marvels which are usually considered exotic and daring to cooking masters.

However, keep in mind that, just as with tastes and traits, contrasts are still liable to a person's own food preferences, so not everyone might enjoy these exotic creations.

Some demanding townies will request dishes that are complex and have contrasting or adjacent features!

Contrasts and combinations:

- Sweet + Sour (e.g.: Teriyaki Sauce, Honey Mustard)
- Sweet + Salty (e.g.: Kettle corn)
- Bitter + Sweet (e.g.: Lemon pie)
- Umami + Oily (e.g.: Spaghetti with Tomato Sauce)
- Hot + Cold (e.g.: Petit Gateau)
- Soft + Crunchy (e.g.: Crouton Salad)
- Spicy + Sweet (e.g.: Spicy Chocolate)
- Fizzy + Liquid (e.g.: Champagne)

Tools and Machines

Procedures

Procedures are types of actions you can take on ingredients to transform them into other kinds of ingredients, obtain byproducts, transfer their attributes into the dish, or modify their qualities directly, which can go from anything like chopping an apple, to fermenting dough.

Additive

Action	Required Tool	Input Rule	Effects	Example Action	Byproduct
Mix	Open container	Must be either **Soft** or **Liquid**	►Results in a **Soft** product unless a **Liquid** ingredient is also added into the mix, in which case it results in a **Liquid** instead.	Flour + Egg + Milk = Dough	-
Shake	Closed container	Must be either **Soft** or **Liquid**	►Results in a **Soft** product unless a **Liquid** ingredient is also added into the mix, in which case it results in a **Liquid** instead.	Salt + Water = Salt Water	-
Combine	-			Bread + Bread+ Ham = Ham Sandwich	

Divisive

Action	Tool	Example Product	Example Result	Byproduct	Byproduct Example
Separate	-	Ham Sandwich	Ham Sandwich = Bread + Bread + Ham	-	-
Peel	Knife, Peeler	Apple	Peeled Apple	Peel	Apple Peel
Slice	Knife	Carrot	Carrot Slices	-	-

Refinement

Action	Tool	Example Product	Example Result	Byproduct	Byproduct Example
Crush	Pestle & Mortar	Peanuts	Crushed Peanuts	-	-
Grate	Grater	Ginger	Ground ginger	[if has liquid] extract	Ginger extract
Press	Screw Press	Coconut	Coconut Oil	Crushed [product]	Crushed coconut
Ferment	Fermentation Tank	Water + Raisins	Yeast Water	[If has upgrade on machine] Carbon Dioxide	Carbon Dioxide Bottle

Heating

Action	Tool	Example Product	Example Result	Byproduct	Byproduct Example
Boil	Stockpot	Water	Boiled [product]	Steam	[It's always steam]
Cook	Pan	Sliced Meat + Onions	Cooked Meat and Onions	-	-
Melt	Saucepan	Butter	Melted Butter	-	-
Sauté	Frying pan	Potatoes + Olive Oil	Sautéed Potatoes	-	-
Fry	Frying pan	Onion rings + Coconut Oil	Fried Onion Rings	-	-
Deep Fry	Saucepan	Chicken Wings + Canola Oil	Deep fried chicken wings	-	-
Bake	Oven	Raw potatoes + salt	Baked potatoes		

Cooling

Action	Tool	Example Product	Example Result	Byproduct	Byproduct Example
Freezing	Ice Machine	Water	Ice Cubes	-	-

Creature Types

Sizes

Size defines yield from resources harvested from the animal, be it eggs/milk, or by butchering.

Tiny: Rats, snakes

Small: Chickens, cats

Medium: Dogs, Pigs

Large: Cows, Wolves

X-Large: Elephants, Hippos

Egg Layers

Tameable animals that lay eggs after being tamed. Very rare varieties produce eggs made of different materials (jelly, gold).

- Chickens and quails
- Lizards
- Ostriches
- Fish
- Crustaceans

Milk Bearing

Tameable animals that give milk after being tamed. Very rare varieties produce milk made of different materials (chocolate, syrup)

- Mammals

Meaty

Tameable animals that produce a large amount of meat and fat when butchered. Very rare varieties can be very large, or produce meat of different flavors (spicy meat, sourbones).

- Pig

Tree Climbers

Tameable animals that help you by getting things from trees. Rarer varieties can get stuff from tall trees and jump a farther distance between trees.

- Squirrels
- Primates

Pond fish

Tameable animals that emit buff-inducing auras from their ponds. Rare varieties emit special auras (temperature changing auras, or auras that season food within their presence)

- Goldfish
- Lambari
- Tilapia

Comfort

Tameable animals that emit buff-inducing auras around them.

- Dog
- Cat:

Small

Mechanic undefined

- Frog
- Insects

Townies

Most townies who come to your restaurant will be happy to eat most unburnt food you provide them. But there are special profession townies who will request a specific meal to be made, and while they will eat anything you give them, by giving the food they request they will give you certain perks and abilities.

For example:
The agronomer requests a **hot**, **spicy meat bread.**
If you give him cold**,** savory fish **bread**, he will reward you with the ability to make fertilizer level 1 (1 element correct).

If you give him **hot**, savory spinach **bread,** he will give you the ability to forage for seeds. (2 elements correct)

If you give him **hot**, **spicy** chicken **bread**, he will give you the ability to make fertilizer level 2 (3 elements correct)

And if you give him **hot, spicy meat bread**, which is exactly what he requested, you get the horticulture ability.

Townies are recurring visitors to your restaurant, so if you miss your chance you can try again some other day.

- Agronomer
  Asks for farm-related food like pies, bread, and grants abilities and perks related to growing and finding food.
- Adventurer
  Asks for macabre food, like soups and sandwiches made from bones and organs. Grants abilities related to hunting and combat.
- Biologist
  Mechanic Undefined
- Cartogrpaher
  Mechanic Undefined
- Other Townies TBD