Sun Haven: More Mana

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# Introduction

Sun Haven is a farming rpg similar to more popular titles such as Stardew Valley and Harvest Moon. Players must balance there time between farming, crafting, and exploration to improve their farm and player stats. By permanently boosting your stats, such as mana, players can optimize there gameplay.

To permanently boost your mana stat, there are many events or random objects that the player can find. However, the most mainline way to do this would be to eat. Whether it be foragables or cooked foods, eating is the most basic way to raise mana, making it important to manage your resources. Specifically because having more mana let’s you cast spells that make farming/combat and traveling more efficient.

Whether its after the first year of game play or beginning of the game, having this information will save resources for making more storage containers and saves space in your home. Just like other games in this genre, you need supplies and space to create the storage. While the game might give you three homes/farms to travel through, those same resources can be used for other crafts such as weapons/armor and furnace materials.

It can be hard to keep track of what foods are the most ideal to constantly stack up on. This also means you have to mine more ore and wood, with wood specifically needing more time to regrow. By looking through the charts presented, we can get useful knowledge about how to proceed with resource management to increase mana to optimize game play

# Loading libraires used  
  
library(tidyverse) # Loads R packages for data manipulation and visualization

## ── Attaching core tidyverse packages ──────────────────────── tidyverse 2.0.0 ──  
## ✔ dplyr 1.1.4 ✔ readr 2.1.5  
## ✔ forcats 1.0.0 ✔ stringr 1.5.1  
## ✔ ggplot2 3.5.1 ✔ tibble 3.2.1  
## ✔ lubridate 1.9.3 ✔ tidyr 1.3.1  
## ✔ purrr 1.0.2   
## ── Conflicts ────────────────────────────────────────── tidyverse\_conflicts() ──  
## ✖ dplyr::filter() masks stats::filter()  
## ✖ dplyr::lag() masks stats::lag()  
## ℹ Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors

library(ggplot2) # Used to create graphs/charts  
library(janitor) # Used to help clean data

##   
## Attaching package: 'janitor'  
##   
## The following objects are masked from 'package:stats':  
##   
## chisq.test, fisher.test

library(wesanderson) # Color palettes from Wes Anderson movies   
library(extrafont) # Loaded in more fonts

## Registering fonts with R

library(gridExtra) # Create a 2x2 grid for plots

##   
## Attaching package: 'gridExtra'  
##   
## The following object is masked from 'package:dplyr':  
##   
## combine

library(grid) # Used to change font for gridExtra  
library(cowplot) # Clean

##   
## Attaching package: 'cowplot'  
##   
## The following object is masked from 'package:lubridate':  
##   
## stamp

# Loading in data that will be used  
  
cooked\_food <- read.csv('Sun Haven Cooked Food.csv') # All cooked meals in Sun Haven game  
  
animal\_product <- read.csv('Sun Haven Farm Animal.csv') # Ranch animals  
  
fish <- read.csv("Sun Haven Fish.csv") # All fish in game  
  
foragables <- read.csv('Sun Haven Foragables.csv') # All foragables in game  
  
crops <- read.csv('Sun Haven Crops.csv') # All crops in game

cooked\_food <- cooked\_food %>%  
 mutate(across(everything(), as.character)) %>%  
 mutate(across(everything(), ~ na\_if(., "N/A") %>%  
 na\_if("N A") %>%  
 na\_if(""))) %>%   
 mutate(sell\_price = as.numeric(sell\_price),  
 mp = as.numeric(mp),  
 hp = as.numeric(hp)) %>%   
 mutate(across(where(is.character), ~ gsub("amount", "", .))) # Remove "amount"

# Data Collection

I collected my own data for this project, making data clean up an important part of this project. Information was complied from two wikis

<https://sun-haven.fandom.com/wiki/Sun_Haven_Wiki> <https://sunhaven.wiki.gg/wiki/Sun_Haven_Wiki>

as well as my own save file

The game is still fairly new, with updates still being pushed. Numeric columns in the cleaned data were updated in micropatches but wikis had not been.

While using “csv\_” is the best choice, I had first created it with “csv.”. By doing so, the code to clean up is a bit more bloated than necessary. Different versions of “NA” has been appropiateky replaced for future codes to be handeled correctly. Not all files were used in the end, however, they were still kept in to show the amount of consideration that I had to put in collecting and scraping the data.