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# PancakeBunny Docs

**Bunny**

**Dec 21, 2021**



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## COMPOUND YIELDS WITH BUNNY

Our Bunny team is dedicated to support the underlying DeFi ecosystem by providing users with an easy way to automatically compound their yields through the Binance Smart Chain. The DeFi movement, and more specifically Yield Aggregators, have seen a huge surge in activity in 2020. The Rise of Yearn, which uses existing protocols such as Compound, DyDx, and Curve, has influenced the development of various other Yield Aggregator projects on the Ethereum Network. Our goal is to expand that same interest through the Binance Smart Chain Ecosystem.





## **YIELD OPTIMIZATION STRATEGIES WITH PANCAKEBUNNY.FINANCE**

A key difference in Yield Farming on Binance Smart Chain is the low gas fee. This makes it much easier for small players and ordinary individuals to enter the DeFi space and still get a good share of the crops with small amounts of capital. Through automation, Bunny allows individuals to reap the benefits of compounding without any additional steps. Bunny calculates the most optimal compounding frequency and automatically compounds your tokens through smart contracts.

Bunny, like other yield aggregators on BSC, uses Pancake Swap since it is the most prominent platform for Yield Farming. Bunny is continuously striving to create innovative new Yield Optimization Strategies. Currently we have BUNNY, CAKE, BUNNY-BNB, CAKE-BNB BUSD-BNB, USDT-BNB, DAI-BNB, USDC-BNB, VAI-BUSD, USDT-BUSD Pools. Furthermore, on our website, you can see we have the maximizer vaults. These strategies allow users to get the profits from certain pools and these profits are automatically auto compounded into the CAKE compounding pool, giving users a much greater return, while protecting the principal. We are currently launching our cross chain project, which will allow ETH-BSC cross chain, bringing more ETH users on bsc yield farming as well.



## CONTACT US

Twitter: @PancakeBunnyFin <https://twitter.com/PancakeBunnyFin> Telegram: [https://t.me/pancakebunny\\_fin](https://t.me/pancakebunny_fin)  
Medium: <https://pancakebunny.medium.com> Email: [hello@pancakebunny.finance](mailto:hello@pancakebunny.finance) GitHub: <https://github.com/PancakeBunny-finance/>

### 3.1 How-to Guides

#### 3.1.1 How-to Video

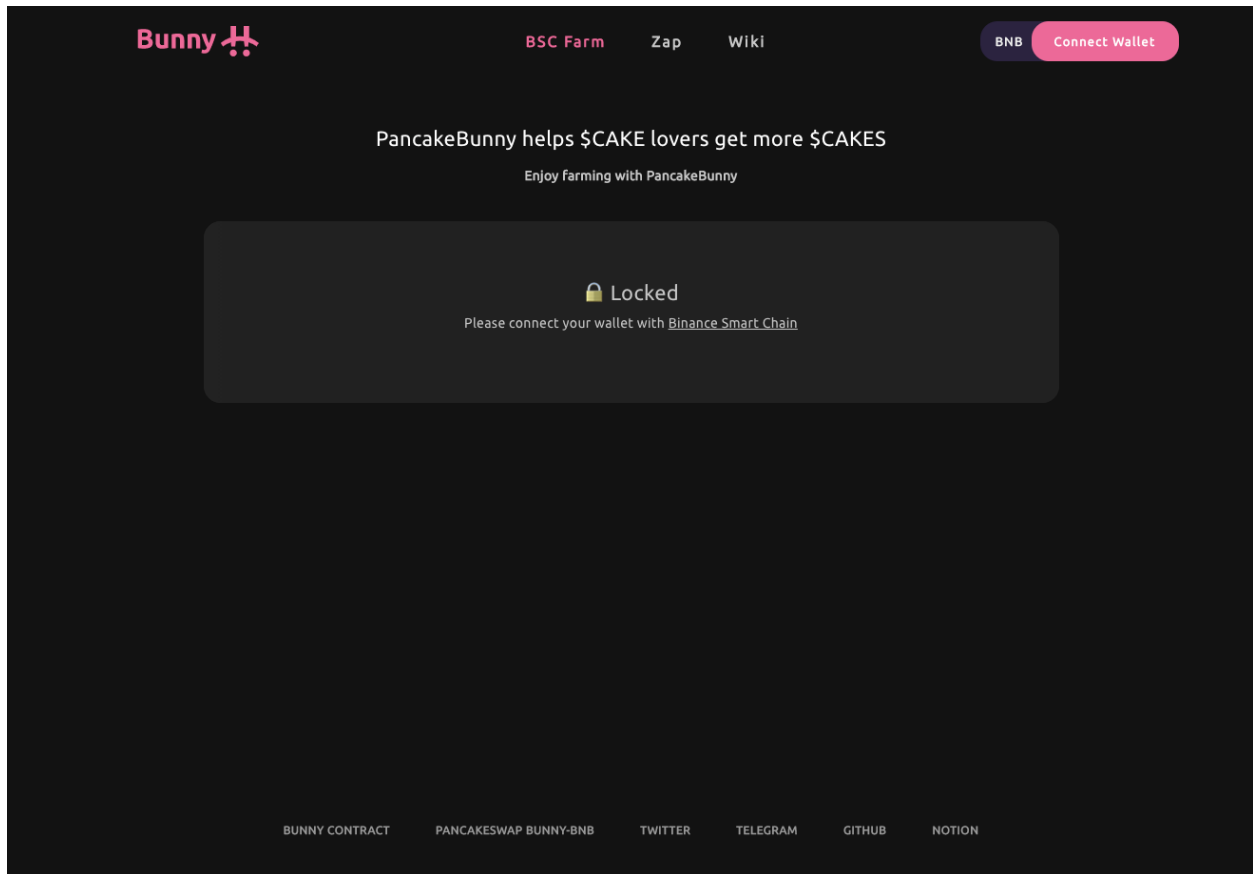
#### 3.1.2 Prerequisites

You must have a specific Farm's underlying token. For CAKE-BNB, you need CAKE tokens and BNB tokens. The same for other respective farms.

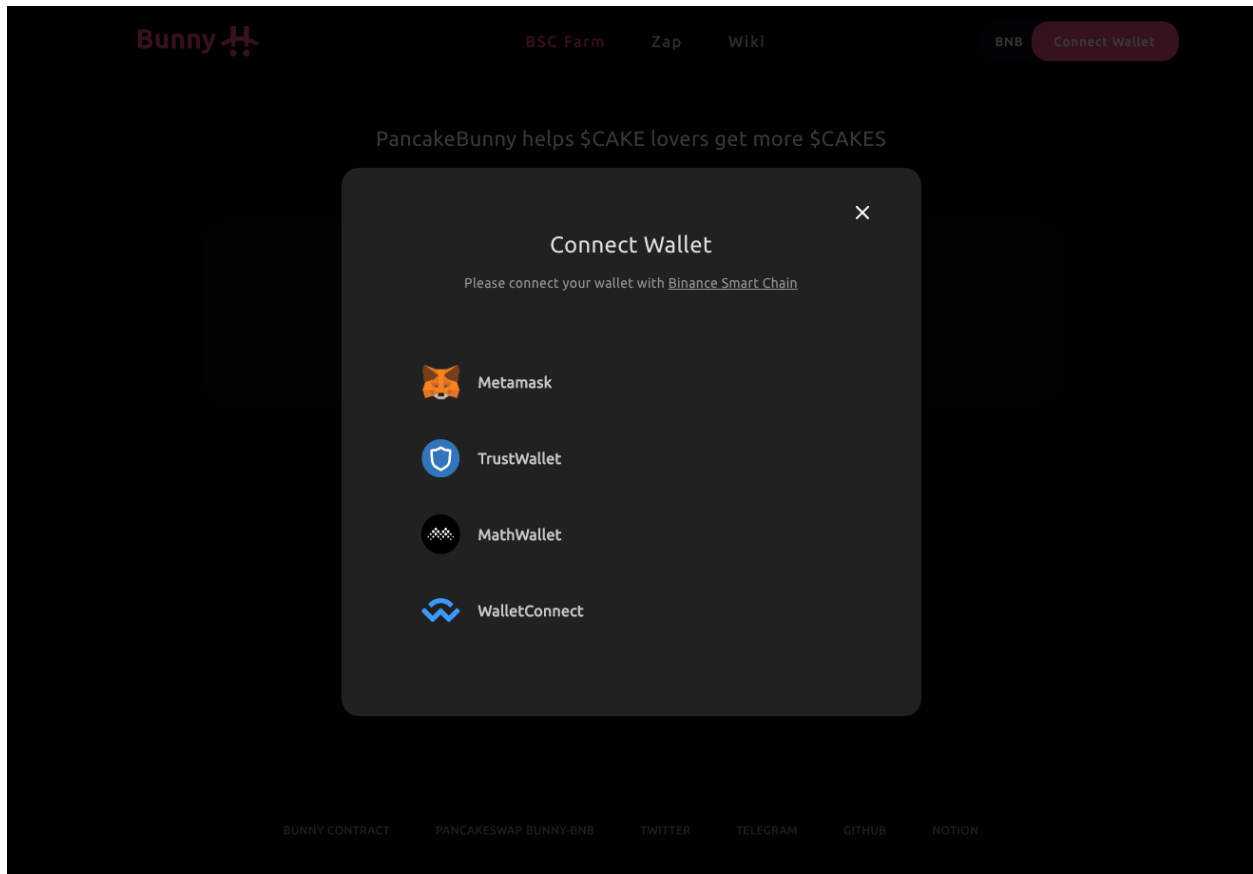
You must have a supported wallet, either metamask, Trust Wallet or Walletconnect!

#### 3.1.3 Walkthrough

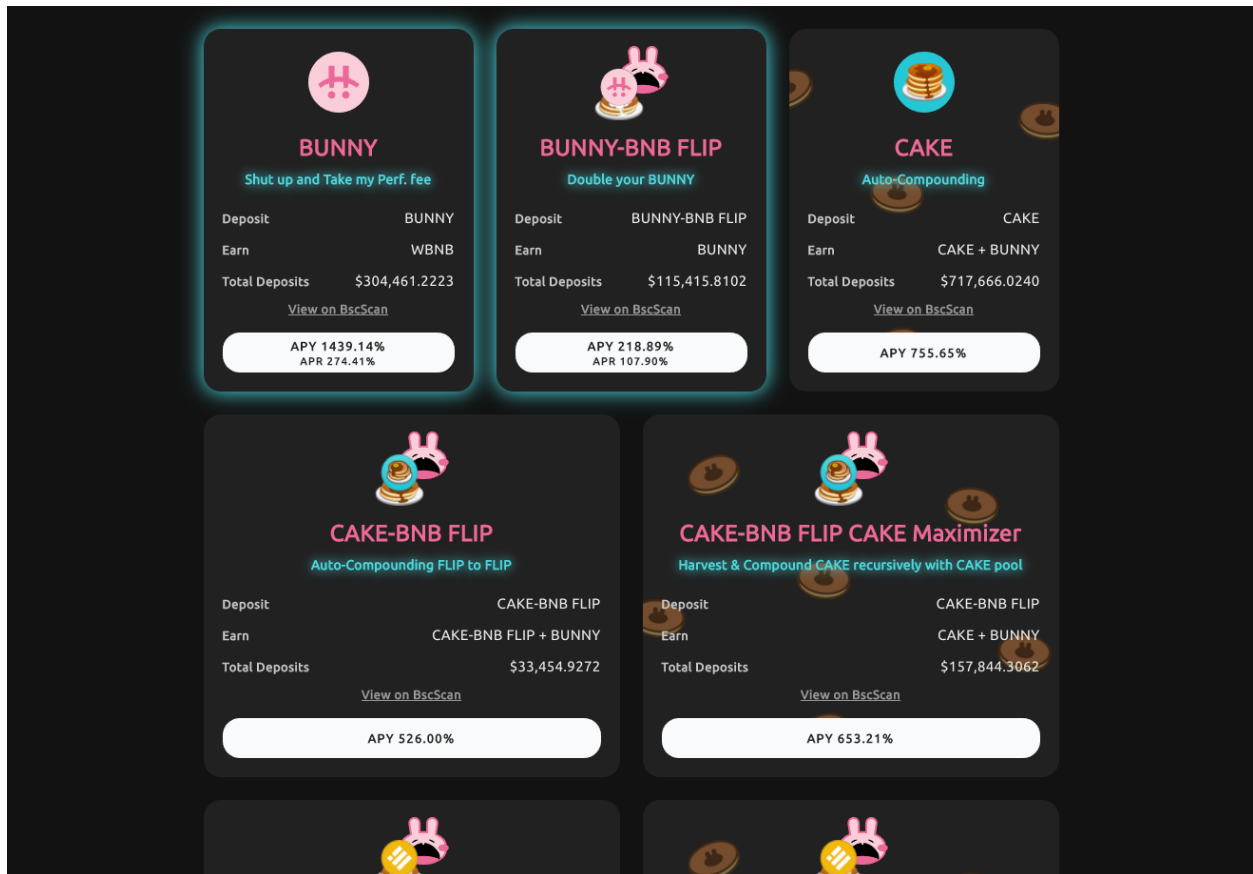
1. Go to [pancakebunny.finance/](https://pancakebunny.finance/) and click "Connect Wallet"




2. Click either the Metamask or WalletConnect Icon depending on what you use



3. Select the Farm you want to invest in



4. You need LP Tokens (LP Tokens) (CAKE-BNB LP, BUSD-BNB LP, etc)



### CAKE-BNB FLIP CAKE Maximizer

[How Maximizer Works?](#)  
[\\*Check it out on the wiki](#)

**Step 1. Get CAKE-BNB FLIP tokens**

CAKE-BNB FLIP tokens are required. Once you've added liquidity to the PancakeSwap CAKE-BNB FLIP pool you can deposit your liquidity tokens on this page.

[Direct ZAP 🐰](#) [ADD CAKE-BNB FLIP LIQUIDITY](#)

APY	634.98% + 18.32%	Pool + BUNNY + Swap
Deposits	0.000	CAKE-BNB FLIP
Profit	0.000 CAKE + 0.000 BUNNY	<a href="#">CLAIM</a>
View on BscScan	<a href="https://bscscan.com/address/0xa3bFF2eFd9Bbeb098cc01A1285F7cA98227a52B1">0xa3bFF2eFd9Bbeb098cc01A1285F7cA98227a52B1</a>	

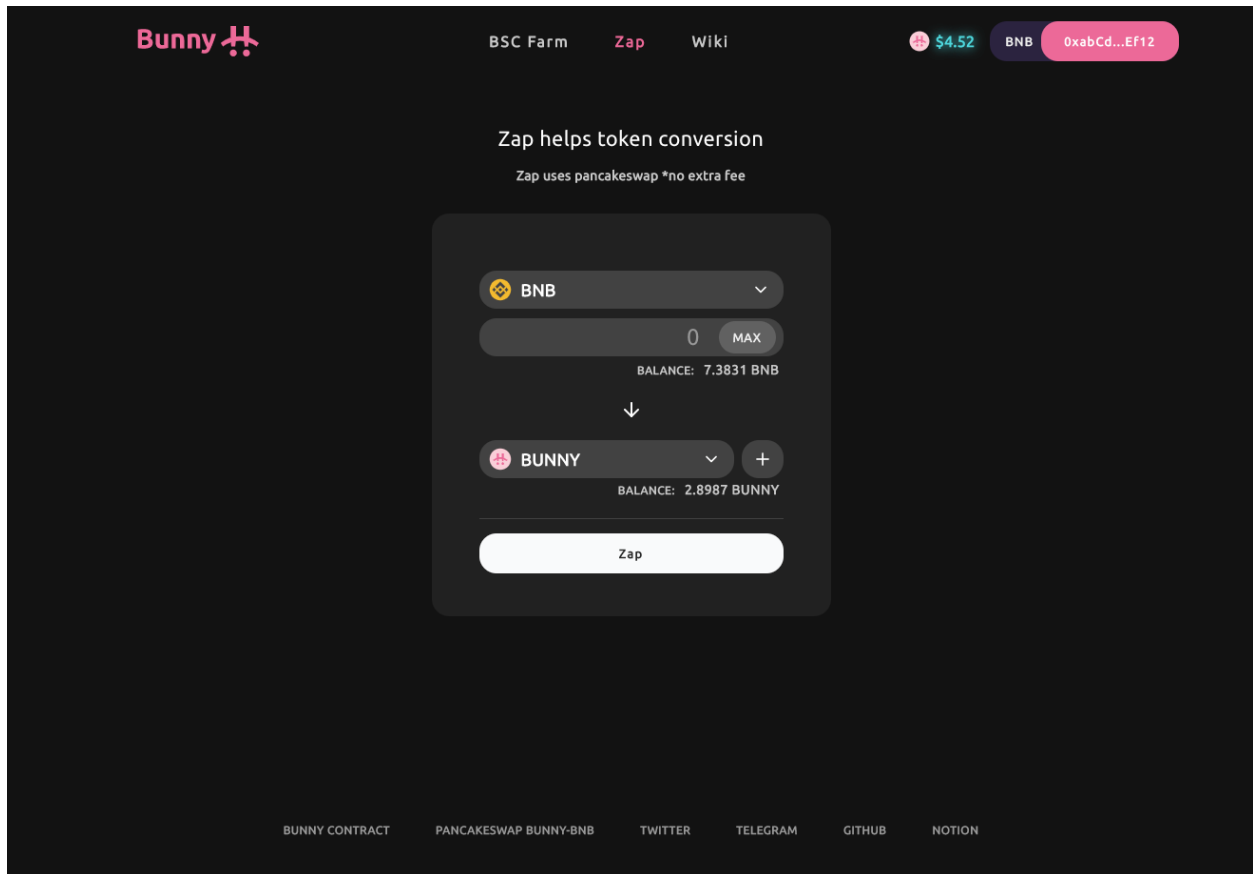
**DEPOSIT** | **WITHDRAW** 0.5% Fee for withdrawals within 3 days  
00:00:00 left

0 CAKE-BNB FLIP [MAX](#)

WALLET BALANCE: 0.3780 CAKE-BNB FLIP

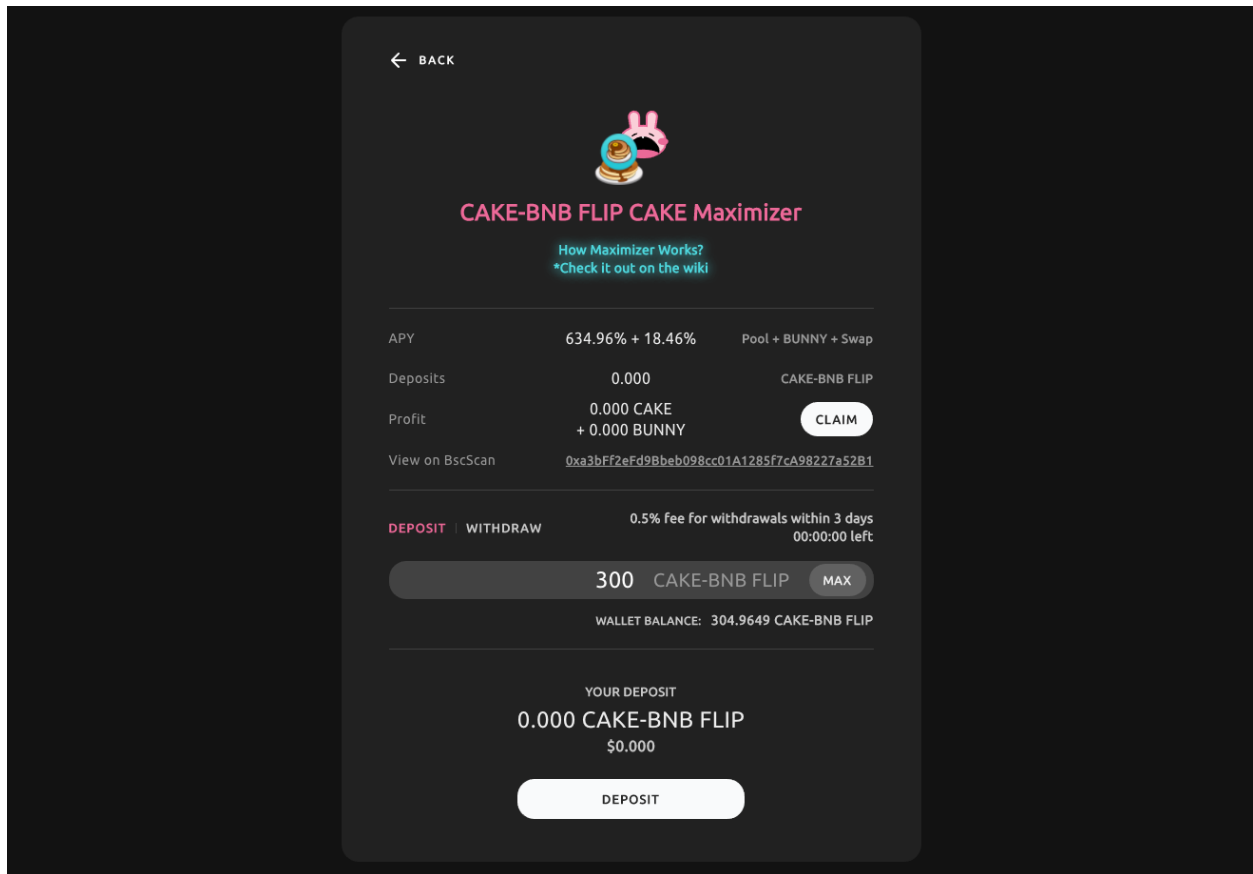
**YOUR DEPOSIT**  
0.000 CAKE-BNB FLIP  
\$0.000

You can also use our Zap feature to provide LP tokens with just one click.




5. After receiving LP Tokens, enter the amount of tokens you want to deposit and click “Deposit”





6. Confirm the transaction with Metamask or WalletConnect

← BACK



### CAKE-BNB FLIP CAKE Maximizer

How Maximizer Works?  
\*Check it out on the wiki

APY	635.07% + 18.44%	Pool + BUNNY + Swap
Deposits	0.000	CAKE-BNB FLIP
Profit	0.000 CAKE + 0.000 BUNNY	<button>CLAIM</button>
View on BscScan	<a href="https://bscscan.com/tx/0xa3bFf2eFd9Bbeb098cc01A1285f7cA98227a52B1">0xa3bFf2eFd9Bbeb098cc01A1285f7cA98227a52B1</a>	

DEPOSIT

WITHDRAW

0.5% fee for withdrawals within 3 days  
00:00:00 left

300

CAKE-BNB FLIP

MAX

WALLET BALANCE: 304.5482 CAKE-BNB FLIP

YOUR DEPOSIT

0.000 CAKE-BNB FLIP

\$0.000

DEPOSIT

DEPOSIT

0

DETAILS

DATA

GAS FEE

0.001359

No Conversion Rate Available

Gas Price (GWEI)

2

Gas Limit

679501

AMOUNT + GAS FEE

0.001359

No Conversion Rate Available

TOTAL

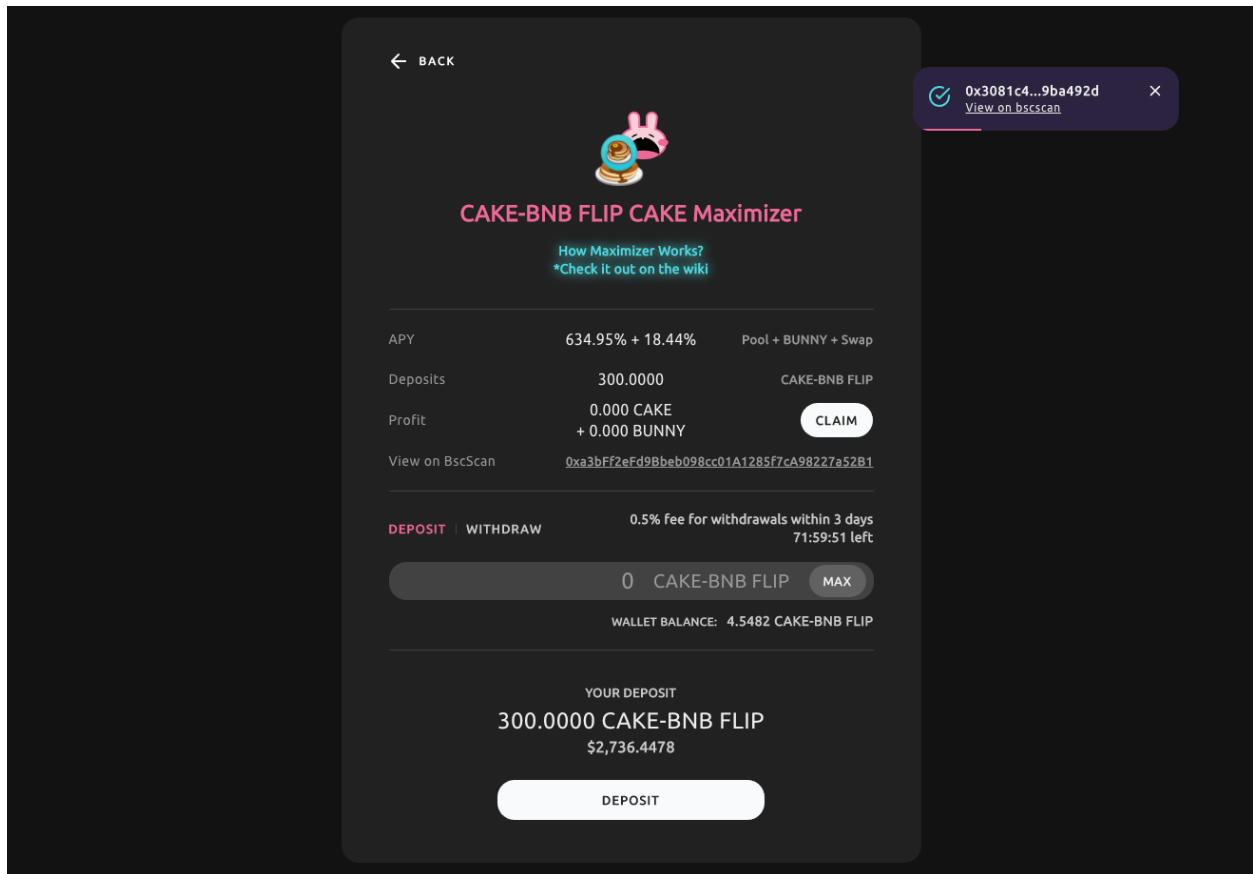
0.001359

No Conversion Rate Available

Reject

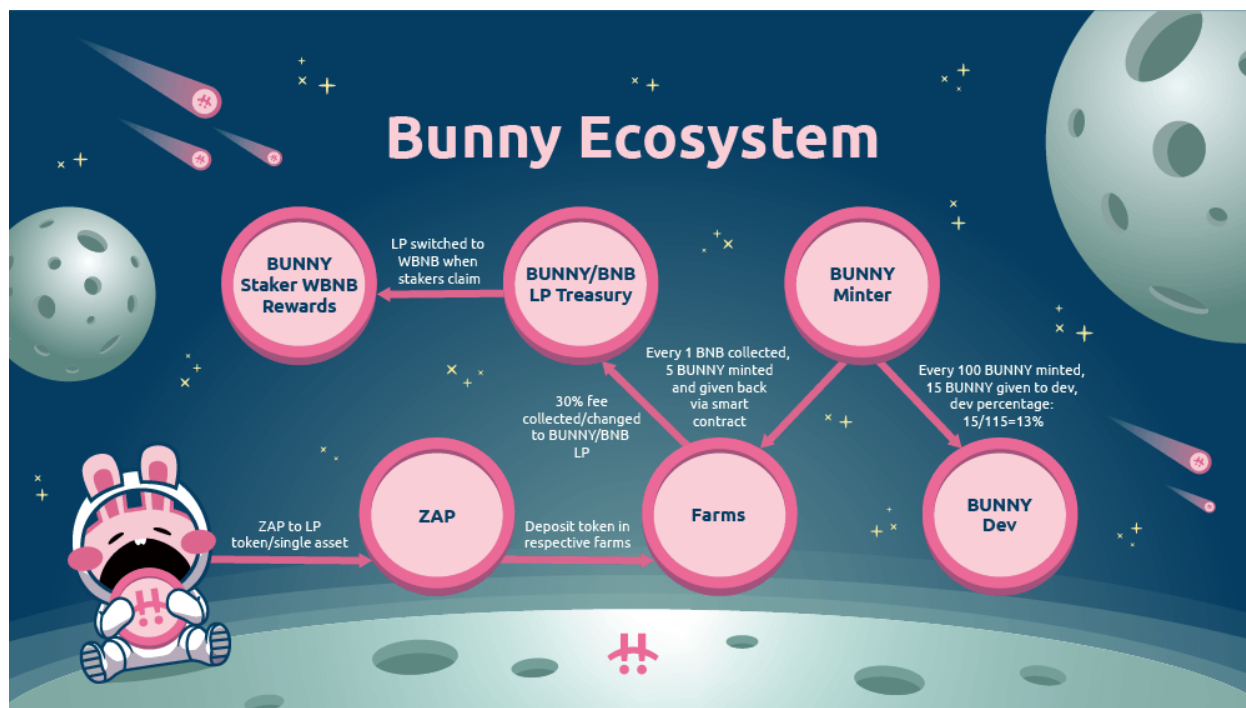
Confirm

7. View the transaction on BscScan and await the confirmation



8. Congrats! You have now joined the Bunny Farm!

## 3.2 BUNNY token



The BUNNY token doesn't have a max supply. For every 1 BNB earned in the performance fees, 15 BUNNY is minted, so supply is not capped at the moment. We may establish new strategies to limit the cap or burn some tokens, however currently we are focused on the growth of the BUNNY token. You can earn BUNNY by using the farms, or you can buy BUNNY through our zap function. Roughly 13% of all BUNNY mints will go towards development to ensure rapid innovation.

- **Honest \$cake Farmers:** Deposit CAKE-BNB LP and reap the benefits of the compounding effect. With Simple Interest, the APY is 150% for CAKE-BNB, however, if this gets compounded it becomes 347% APY. The assumptions are the following: 1) initial capital is \$1m, 2) transaction cost: \$1, 3) Compounded Once Daily. The transaction cost assumes it takes 4-5 steps for Pancake Bunny to compound deposits. Around 25% of Bunny's profits will be bonuses. Some percent of the farming profits will be saved as BNB in the BUNNY Reward Pool.
- **Degens:** Buy BUNNY at the start of launch. Sell when the price becomes high enough to fulfill your greedy desire. The Probability of BUNNY dropping below the initial price of \$3 is very low. 1) Presale Participants bought BUNNY at \$3 and will not sell below that price at a loss. 2) As BUNNY Price goes up, Bunny issued volume will decrease.
- **Smart Investors:** Stake BUNNY long-term. The APY of BUNNY Pool is amazing and real! The meaning of BUNNY Pool's APY 100% is if you buy \$10 worth of BUNNY now and stake it for 1 year, you will receive \$10 worth of BNB. If you sell the remaining BUNNY on the market, you can also capitalize on profits there. If you are a wise investor, you would meticulously analyze the APY of the staking pool and earn profits not only from the BNB rewards, but also from selling the BUNNY as well.
- We are starting off with the following fee structure:
  - 1) 30% Performance fee
  - 2) 0.5% withdrawal fee if withdrawal happens within 72 hours of deposit

For further clarification the 30% performance fee is collected and given to the BUNNY stakers. For every 1 BNB earned through performance fees, 15 BUNNY is minted and given to respective users. So long as the price of BUNNY stays above 1BNB/15, users are actually earning money through

this performance fee system. All of these fees will ultimately go towards staking BUNNY, thereby ensuring the sustainability and longevity of our project and benefitting BUNNY supporters/holders.

- Click on the following spreadsheet link to understand the detailed tokenomics breakdown. [http://bit.ly/bunny\\_tokenomics](http://bit.ly/bunny_tokenomics)

### 3.2.1 Presale (Ended)

Date: 11/4 SGT 12:00 ~ 11/17 SGT 12:00

Allocation: 10,000 BNB

returns: 10,000 BNB worth of LP tokens + locked up 50,000 BUNNY tokens

Launch: 11/20

Reward Payout: 11/21

- 10 BUNNY Tokens are given per 1 BNB. If all 10,000 BNB gets sold and allocated a total of 100,000 BUNNY will be issued.
- Participants of the presale are eligible to withdraw BUNNY-BNB LP following the launch.

#### Intended Uses

##### 1. Liquidity Pool

- Once the pool is created, 5,000 BNB and 50,000 BUNNY will be put in the Pancake Swap Liquidity Pool (Est. Value: \$300,000).
- LP Tokens will be given to presale participants according to their share.

##### 2. BUNNY Reward Pool

- The BUNNY Reward pool is a type of reward pool that issues BNB as a reward for staking BUNNY.
- When the pool gets created the presale participants' 50,000 BUNNY will get staked.
- 5,000 BNB will get accumulated as rewards and will get distributed over 365 days.
- There will be a BUNNY lockup for Presale Participants. Following the launch, the presale BUNNY tokens will be unlocked equally according to the amount of new BUNNY tokens issued.
- 1 Year of continuous staking will allow for a full withdrawal of 5,000 BNB without any fees.

## 3.3 Vaults (BSC)

### 3.3.1 BUNNY Staking Farm

In this farm, users can stake using their BUNNY tokens, while getting back WBNB. The APR for this farm is dependent on the performance of all the other farms, since the 30% performance fee on other farms are what is collected and given out as the reward/roi for the BUNNY staking pool. BUNNY Pool has no withdrawal fee and no performance fee.

### 3.3.2 BUNNY/BNB Farm

In this farm, users can deposit BUNNY/BNB and earn even more BUNNY tokens. There should be a withdrawal fee of 0.5% if withdrawn within 72 hours.

### 3.3.3 CAKE Auto Compounding Farm

The CAKE farm is where you can reap the benefits of automating compounding and the high APY. There should be a withdrawal fee of 0.5% if withdrawn within 72 hours. The 30% performance fee is collected but for every 1 BNB in fees collected, we give 15 BUNNY, so you're getting free money.

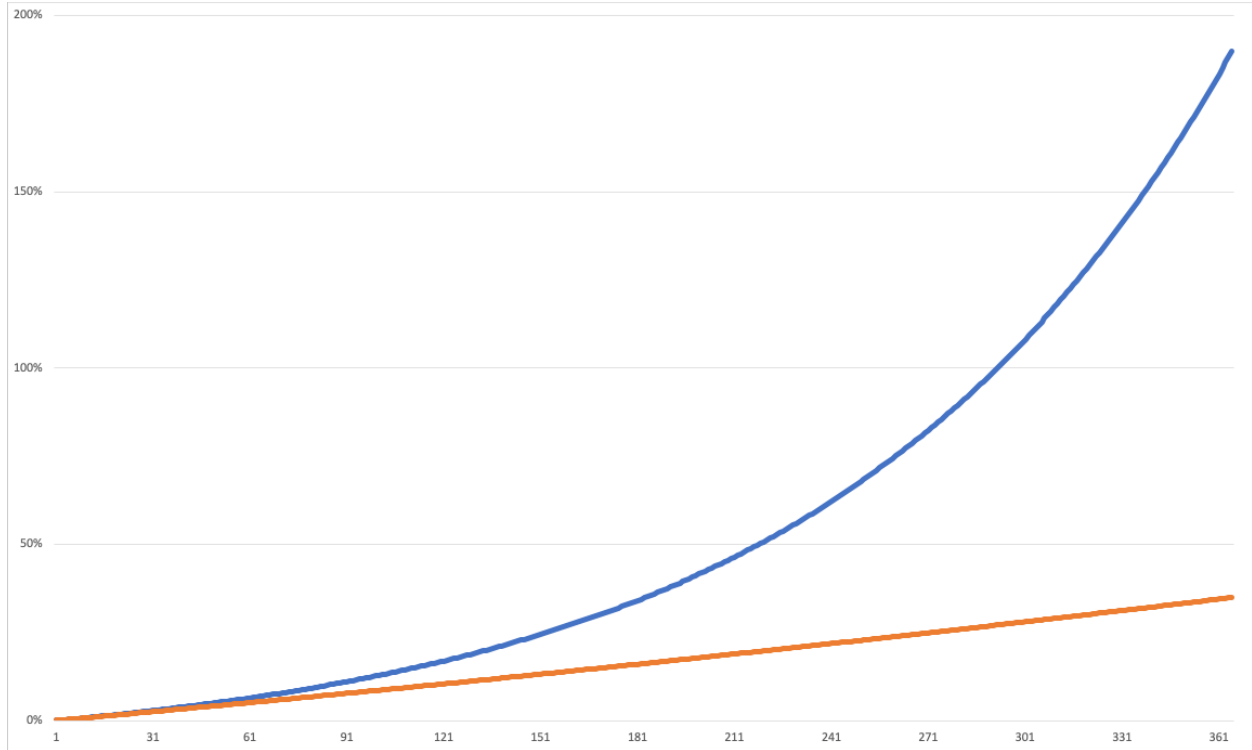
### 3.3.4 Rest of PancakeSwap Farms

Currently we have CAKE-BNB, ETH-BNB, BTCB-BNB, BUSD-BNB, USDT-BNB, DAI-BNB, USDC-BNB, VAI-BUSD, USDT-BUSD pools, which exist on Pancakeswap. Our smart contracts automatically compound your investments, giving you a higher APY. For these pools, as profit you will be getting the respective LP Token of the pool, as well as BUNNY tokens. 30% of profits will be collected and given as BUNNY tokens. For every 1 BNB collected, we give 15 BUNNY. There should be a withdrawal fee of 0.5% if withdrawn within 72 hours. Currently you can only claim your profits, if you claim & exit the pool. We may change this in the future.

### 3.3.5 Maximizer PancakeSwap Farms

The Maximizer farms takes the profits that come out of the original compounded Pancakeswap farm, and puts it into the CAKE auto-compounding farm, in order to give you a higher apy, while protecting your principal. There should be a withdrawal fee of 0.5% if withdrawn within 72 hours. With the Maximizer Farms, users can claim their profits, without exiting the farm.

According to our test calculations, assuming that CAKE price stays constant, USDT-BNB Farm APY is 30%, and CAKE APR is 300%, then the APY of someone who deposits into the "Yield Maximizing USDT-BNB Farm" would be 189.9%. This is much higher than the 30% achieved by simply compounding USDT-BNB, yet the risk is very minimal. The only risks would be if CAKE price drops significantly, or if the CAKE APR drops as well. That being said even if the CAKE price drops significantly the principal amount invested in USDT and BNB would still be the same. Similar to our regular farms, in order to fully benefit from the compounding effect, a user must have the patience to sit back and watch their money grow exponentially over time. One small complication is that because of the way the new yield maximized farms are coded through back end development, the yields earned daily (24 hour period) get distributed the next day on a rolling cycle. This means that users who deposit from day 0 to day 1 would be at a slight disadvantage as they would not be able to receive their fair share of yields for the first 24 hours. To mitigate this effect we plan on giving these early users some BUNNY to compensate for the lost yields. The graph below illustrates the difference in returns between the original Stable-BNB farm and the new Yield Maximizing Stable-BNB farm.



We have provided the mathematical formula for calculating the total geometric sum. Feel free to use it to personalize your calculations.

### Formula [\[ edit \]](#)

For  $r \neq 1$ , the [sum of the first  \$n\$  terms of a geometric series](#) is

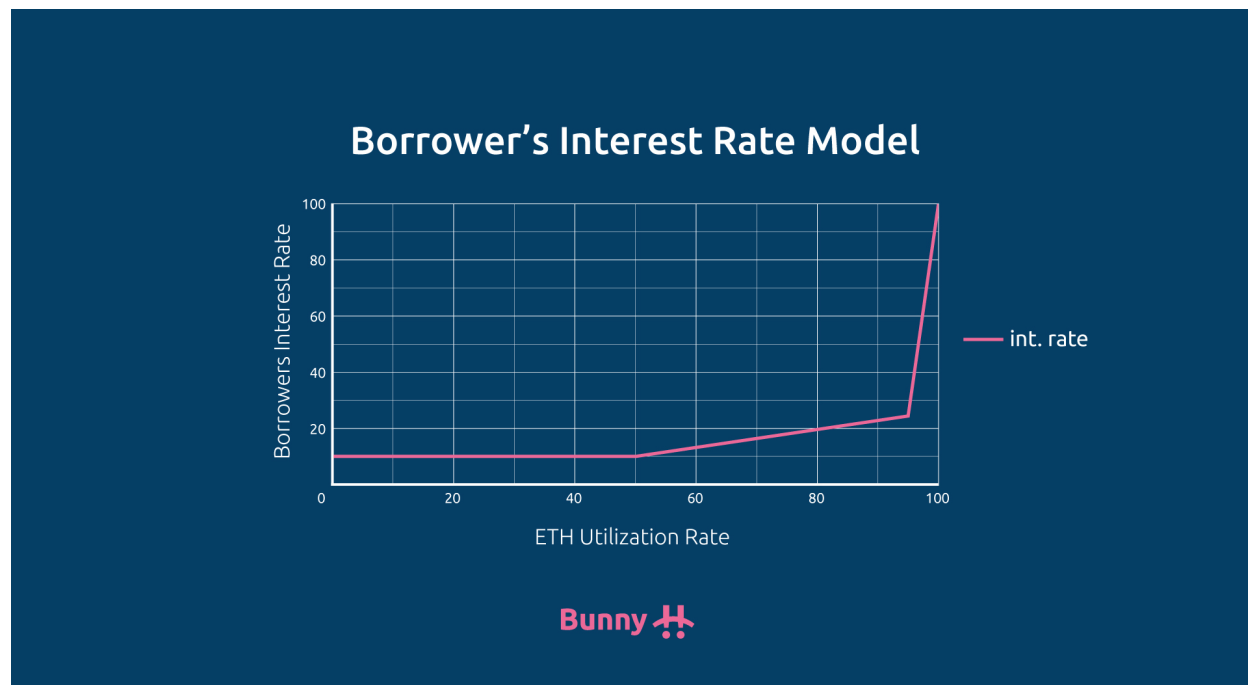
$$a + ar + ar^2 + ar^3 + \dots + ar^{n-1} = \sum_{k=0}^{n-1} ar^k = a \left( \frac{1 - r^n}{1 - r} \right),$$

where  $a$  is the first term of the series, and  $r$  is the common ratio. One can derive the formula for the sum,  $s$ , as follows:

$$\begin{aligned} s &= a + ar + ar^2 + ar^3 + \dots + ar^{n-1}, \\ rs &= ar + ar^2 + ar^3 + \dots + ar^{n-1} + ar^n, \\ s - rs &= a - ar^n, \\ s(1 - r) &= a(1 - r^n), \\ s &= a \left( \frac{1 - r^n}{1 - r} \right) \quad (\text{if } r \neq 1). \end{aligned}$$

### 3.3.6 Single Asset Smart Vaults

Currently, our single asset vaults feature BNB, ETH, BTCB, USDT, and BUSD. The new Smart Vaults provide users with opportunities to earn interest safely without losing their principal. The loan interest rate model follows TripleSlope-Model. (Source code for AlphaHomora v1 was forked and partially modified.) Any principal amount in these smart vaults that is not used directly for cross chain will be managed and invested in Venus. When cross chain goes live, the single asset vaults will provide liquidity for ETH users, resulting in the loan interest rate model below.



1. 0%-50% utilization has interest rate of 10%
2. 50%-95% utilization has interest rate of 10%-25%
3. 95%-100% utilization has interest rate of 25%-100%

These Vaults will be the first to use Venus on our platform, exemplifying our goals of diversifying and optimizing yields from various DeFi Platforms. Our Smart Vault will automatically calculate the interest rate and adjust leverage dynamically. (e.g. If borrowing interest is high, we simply deposit into venus. Otherwise, we borrow again, redeposit, and repeat.) This is quite different, and much more innovative than the current single asset Venus vaults that exist on other yield aggregating platforms since we optimize and adjust the leverage, while providing liquidity for our future cross chain product.

### 3.3.7 Farm profit breakdown

For all of the non Bunny farms, keep in mind that everything is being compounded in the respective token before withdrawal. I.e. cake compounding farm, cake is the only thing being compounded. The same applies to cake maximizer, flip vaults, etc... In this example we will use the cake auto-compounding farm. At the time of withdrawal, 30% CAKE profits will be calculated into the \$ equivalent of bnb. For every 1 BNB this equals to 15 BUNNY is minted and given. The UI breakdown of Cake and Bunny rewards is just an approximation, and will differ greatly depending on the exact time of withdrawal/claim. Please see the example below for calculation purposes. -User A deposits 1000 CAKE, and earns a profit of 100 CAKE when he decides to withdraw. At the exact time of withdrawal, CAKE is \$18, BNB is \$360, and BUNNY is \$25. As such User A will receive 70 CAKE as well as  $((30 \text{ CAKE} \times \$18) / \$360) \times 15 \text{ BUNNY} = 22.5 \text{ BUNNY}$ .



## 3.4 Polygon

Pre-Liquidity Period

Schedule:

Start: 02:00 on 23 June (UTC)

End: 24:00 on 30 June (UTC)

Limits:

No total cap

No limit per wallet

Based on 1 ETH staked during this pre-launch window, users will receive a bonus of 750 polyBUNNY according to the following mechanism:

1. User provides 1 ETH on PancakeBunny's Polygon fork;
2. PancakeBunny mints 750 polyBUNNY for the user;
3. PancakeBunny uses 0.5 ETH and 250 polyBUNNY to create a Quickswap LP token;
4. PancakeBunny automatically begins farming the LP token in the newly forked polyBUNNY-ETH Pool to generate PancakeBunny Polygon yields (i.e. polyBUNNY-ETH LP + additional polyBUNNY rewards);
5. PancakeBunny uses 250 polyBUNNY and the remaining 0.5 ETH to create another polyBUNNY-ETH LP token, which it then sends to the Polygon Bunny Pool to be farmed over the next 90 days (similar to the operation of the original Bunny Pool on BSC);
6. PancakeBunny automatically stakes the remaining 250 polyBUNNY to farm returns in the newly forked Polygon Bunny Pool, which returns are then distributed in the form of polyBUNNY;
7. Staked pre-launch polyBUNNY-ETH LP and polyBUNNY tokens locked up for up to 90 days, subject to the ratio of pre-launch polyBUNNY to polyBUNNY minted post-launch.

Initial APR for polyBUNNY/ETH: 400%

Initial APR for polyBUNNY staking pool: 800%

## 3.5 ZAP

The Zap feature we added essentially allows for a user to directly switch from single asset (BNB) to an LP Token (BNB-CAKE LP), with just a click of a button without having to go to pancake swap and switch out different assets. Users can also just switch between different assets, for example, BNB to BUNNY. There is no additional fee for this zap; we built this tool for the convenience of users.

## 3.6 Pot

### 3.6.1 What Is a Bunny Pot?

A Bunny Pot is a no-loss “jackpot” pool similar to the service pioneered by Pool Together. Users stake tokens to a Bunny Pot during an initial Staking Period (e.g. the first 24 hours). At the end of this initial Period, the Pot is closed to further staking and for the next 6 days (the Farming Period), the Pot farms all of the pooled assets to generate a pooled yield. (Note: technically, the Bunny Pot begins staking tokens as soon as they are staked, but in the interests of simplicity, we call the next 6 days after staking closes the Farming Period).

At the end of the Farming Period, one user is randomly selected as the winner, based on a composite weighting of the Number of Tokens they have contributed to the Bunny Pot times the Speed multiple (S) and the History multiple (H) (so that the composite weighting = # Tokens X S X H).

### 3.6.2 What Does No-Loss Mean? Can I Lose Any of the Tokens I Stake?

Bunny Pots are no-loss pools in the sense that your principal is never at risk. At the end of the Farming Period, everyone who participates will be returned their initial stake. No one is at risk of losing any of the tokens they stake because Bunny Pots operate just like all of our other pools. The difference lies in how the profits are distributed.

### 3.6.3 So Then Where Do Bunny Pot Pool Profits Go?

Essentially, Bunny Pot pool profits go to the winner, with some portion reserved for PancakeBunny’s program to buy back BUNNY tokens. For launch purposes, 90% of all of the profits go to the winner, and 10% go to the Community Treasury to buy back BUNNY on the open market. This ratio may be adjusted from time to time as Team Bunny monitors user behavior and buy back performance to maximize the benefit to the PancakeBunny Community.

### 3.6.4 Team Bunny “Jackpot” Contribution

At launch, Team Bunny is contributing a big bag of tokens to each Bunny Pot to grow the total “jackpot”. At launch and until the Bunny Pots are organically sufficiently large to obviate the need for Team Bunny to seed the Pots, Team Bunny is committed to contributing this initial stake to make the size of the “jackpots” worth the opportunity cost of users staking to the pools.

NONE of Team Bunny’s tokens is eligible to win. Their sole function is to contribute to the size of the pool being farmed. In other words, Team Bunny’s tokens are “whitelisted” and are ineligible to win and are therefore not counted in calculations of probabilities. Their only effect on the outcome is to INCREASE the number of tokens that are farmed by the Bunny Pot to INCREASE the size of the “jackpot” that goes to the winning user.

### 3.6.5 Bunny Pot Math — “Jackpot” Calculations

Suppose the Team has staked 10,000 CAKE to the CAKE Bunny Pot to increase the eventual “jackpot”.

And suppose users stake 1,000 CAKE to the Bunny Pot during the Staking Period, so that the total number of CAKE staked to the Bunny Pot is 11,000 CAKE (Team Tokens plus Community Tokens).

Then, throughout the Farming Period, and at current APY’s, the Bunny Pot profit would generate a total of around 220 CAKE in profits.

Suppose you were a user who had staked 10 CAKE to the Bunny Pot in this scenario. If you had instead staked 10 CAKE to the CAKE pool on your own, you would expect to have earned around 0.2 CAKE by the end of the Farming Period.

But by staking your 10 CAKE to the Bunny Pot, you are guaranteed the return of your original stake just as in standard pools, and you have a chance to win the “jackpot” of 90% of the entire Bunny Pot yield of 220 CAKE. This is equivalent to a 990x multiple on the earnings you would expect to have earned if you had staked your 10 CAKE on your own.

### 3.6.6 Bunny Pot Periods

Before diving into how Bunny Pot Weighted Odds work, let’s take a look at the different Periods in the status of a given Bunny Pot. These Periods operate as follows over a 7 day period:

- **Staking Period** (the first 24 hours): This is the period during which you can stake tokens to the Bunny Pot. (BUNNY POT STATUS = UNLOCKED)
- **Farming Period** (the 6 days following the Staking Period)\*: This is the period during which the Bunny Pot is closed to any more staking, and during which the Bunny Pot will farm profits using the total pooled assets of the Bunny Pot (including the contribution from Team Bunny!). (BUNNY POT STATUS = FARMING)
- **Return Period** (the period after the Farming Period ends): At the end of the Farming Period, open the Bunny Pot to see if you have won! If you have won, you will receive your original stake, plus 90% of the profits farmed by the entire pool over the course of the Farming Period! If you haven’t won, don’t worry, your stake will be returned to you because Bunny Pots are NO-LOSS! (BUNNY POT STATUS = COLLECT)

### 3.6.7 Understanding Bunny Pot Parameters

Your final odds are determined by your Weighted Contribution (WC) to the Bunny Pot divided by the Total Weighted Contribution (TWC) of all of the users staked in the Bunny Pot.

Weighted Contribution (WC)

Your WC is determined by the following parameters: the Amount (A) or number of tokens you stake, the Speed (S) multiplier derived from how early you contribute your stake during the Staking Period, and the History (H) multiplier derived from your win/loss history.

**Amount (A):** Suppose you staked 10 CAKE, as in the example above. Then:  $A = 10$ , the number of CAKE you staked in the Bunny Pot

**Speed (S):** The Speed multiplier, S, is determined by the following table.  $S = 2.8$  if you stake between Hour 0 and Hour 4 of the Staking Period  $S = 2.4$  if you stake between Hour 4 and Hour 8 of the Staking Period  $S = 2.0$  if you stake between Hour 8 and Hour 12 of the Staking Period  $S = 1.6$  if you stake between Hour 12 and Hour 16 of the Staking Period  $S = 1.2$  if you stake between Hour 16 and Hour 20 of the Staking Period, and  $S = 0.8$  if you stake between Hour 20 and Hour 24 of the Staking Period Within 20 to 24 hours:  $\times 0.8$

**History (H):** Your History multiplier increases your chances of winning the longer you have gone without winning a Bunny Pot.  $H = 1$  if you have not won a single Pot in your previous 0 to 4 Pots;  $H = 2$  if you have not won in your previous 5 to 8 Pots;  $H = 3$  if you have not won in your previous 9 to 12 Pots; and  $H = 4$  if you have not won in your previous more than 13 Pots.

**Stake Limits:** What Are the Min Stake and Max Stake? For launch purposes, we have set the following stake limits:

Minimum Stake: Min Stake = 1 Token

Maximum Stake: Max Stake = 100 Tokens

### 3.6.8 Bunny Pot Math — Calculating Your Odds

As in the above “jackpot” calculation, suppose the Team Contribution = 10,000 CAKE and the total Community Contribution = 1,000 CAKE, of which you have contributed 10 CAKE.

Suppose further that you staked your CAKE during the first 4 hours of the Staking Period, and that you had not won a single Pot in the last 10 times that you had participated.

Then your Weighted Contribution (WC) would be calculated as follows:

$$WC = A \times S \times H = 10 \times 2.8 \times 3 = 84$$

To calculate your odds, let us assume that the average Speed multiplier for the remaining CAKE staked to the pool by the Community is  $S = 2.6$  and the average History multiplier for the remaining Community stake is  $H = 1.001$ .

Then the Total Weighted Contribution (TWC) of the rest of the Pool is calculated as follows:

$$TWC = WC + 990 \times 2.6 \times 1.001 = 84 + 2,576.574 = 2,660.574$$

In which case, your Final Odds (FO) would be calculated as follows:

$$FO = WC / TWC = \sim 3.16\%$$

Because the user, in this case, staked quickly and hasn’t won a single Pot in the last 10 Pots, they have increased their odds by over 3x versus their simple unweighted share of the total token pool (1%).

Finally, your Expected Return for Participating (ERP), in this scenario, would be calculated as follows:

$$ERP = 220 \text{ CAKE} \times FO = \sim 7 \text{ CAKE}$$

In this scenario, your  $ERP = \sim 7 \text{ CAKE} = \sim 34.7 \times 0.2 \text{ CAKE}$  (your expected return if you farmed your 10 CAKE on your own). So your ERP is  $\sim 35 \times$  your ERP if you staked your CAKE on your own.

The above description is meant to illustrate the functioning of the construct. For a more formal statement, please see the following:

$$\begin{aligned} WC &= a_1 * s_1 * h_1 \\ TWC &= \sum_{k=1}^n a_k * s_k * h_k \\ FO &= \frac{WC}{TWC} \end{aligned}$$

## 3.7 Floating Rate Emission

Given both the necessity to generate meaningful rewards yet also continually improve the current token dynamics, we implemented a mechanism for a floating rate emission (FRE). The initial FRE is 36% — 30% Performance Fee, 6% BUNNY mint.

When the relative price of BUNNY goes below 1/15 of BNB (or an otherwise optimal threshold), the system will adjust to do the following:

1. The system uses the 30% Performance Fee to buy BUNNY at the market price.
2. An amount of BUNNY equal to 6% of the Claim is minted and sent to the user

On the other hand, when the BUNNY/BNB Ratio is over the above optimal BNB threshold, initiated claims will perform as originally designed, with the Performance Fee going to the Bunny Pool and the newly minted BUNNY delivered to the user.

Start Date: 17 June 2021

## 3.8 Governance

BUNNY holders control the ecosystem and receive the majority of farm performance fee profits. In order to claim these profits, BUNNY holders stake their tokens in the BUNNY Governance Pool. Profits are sent to this pool in the form of BNB rewards. The amount of profits you receive is determined by the number of BUNNY tokens you stake (% of the pool) you own. We currently have a snapshot voting page where users can use BUNNY to vote on decisions within our community. Thus the more BUNNY you stake, the higher your influence in the ecosystem. In the future, we expect to come up with a more concrete governance tokenomics ecosystem, perhaps by introducing a new, separate governance token.

## 3.9 FAQ

### 3.9.1 What is Pancake Bunny?

PancakeBunny is a new and rapidly growing DeFi yield aggregator that is used for PancakeSwap. The PancakeBunny protocol empowers farmers to leverage their yield-seeking tendencies to optimize yield compounding strategy on BSC. We are providing strategies for the various needs of farmers from the highest yield seekers to the risk reward optimizing smart investors.

### 3.9.2 What is the Reason for launching Pancake Bunny?

We wanted to create a platform that automatically compounds yields for all individuals, no matter how small your stake may be. Our goal is to expand the DeFi ecosystem, specifically on the Binance Smart Chain, while providing users with various strategies to maximize returns while minimizing risk.

### 3.9.3 How do Bunny Farms Work?

Currently, the majority of our farms are those that exist on Pancake Swap. Essentially the farms on our platform get permission from individuals via smart contracts to automatically compound and reinvest yields on behalf of individuals.

### 3.9.4 Can't I just compound by myself?

Compounding yourself on PancakeSwap is a very tedious process and it is often hard to know the optimal frequency and timing of when to compound and reinvest your yields. Bunny does all of this for you plus saves you gas fees.

### 3.9.5 What is the BUNNY Token?

BUNNY Token is our native governance token. BUNNY holders govern our ecosystem and receive the majority of farm performance fee profits. Holding/Staking BUNNY is not only beneficial for individual profits, but also ensures the Bunny Ecosystem runs smoothly.

### 3.9.6 Which Bunny Farm do I pick?

Every Farm requires a different LP Token. Furthermore the different Farms represent different risk tolerances for Bunny users. A high APY usually means more volatility in the underlying token price. For example, BUSD-BNB has a much lower compounded APY than CAKE-BNB, since BUSD is a stable coin which is pegged to the dollar and does not experience volatility.

### 3.9.7 What are the risks of Farming on Bunny?

Systematic Risk

The Systematic Risk would be the decrease of monetary value of assets deposited, be in BNB, CAKE, etc. For example BNB could be \$30 when you deposit and \$25 when you withdraw

Idiosyncratic Risk

The Idiosyncratic Risk would be risks associated with our actual project. Although our code has been audited by Haechi Labs, there are always risks that projects will fall victim to malicious hackers. That being said, our Bunny developers account for the security risks of smart contracts and only will interact with contracts that meet the security threshold.

### 3.9.8 How to Determine Daily % Gains?

Because the APY is constantly changing on Pancake Swap, the Compounded APY on the Bunny Platform is constantly changing. Furthermore, because this APY is calculated via compounded (exponential growth), it cannot be calculated in a linear manner (i.e.  $APY/365$ ) So long as you hold your tokens in our farms for an extended period of time, your assets will continue to grow exponentially.

### 3.9.9 Where does CAKE or LP come from in the rewards?

CAKE or the LP tokens are all used from Pancakeswap, we automatically compound yields via Pancakeswap.

### 3.9.10 Where does BUNNY come from?

BUNNY is minted via the project's smart contracts.

When the user executes a Claim on their profits in a given Pool, they receive 70% of the profit's value in the respective auto-compounded farm token, and receive 30% of the profit's value in BUNNY.

This 30% worth of profit is calculated in \$ equivalent of BNB, and for every 1 BNB the user gets 15 BUNNY.

### 3.9.11 Where does Swap % come from?

The swap percentage is an estimation based on the swap fee that liquidity providers receive every time someone swaps that pair. These rewards go to the LP token itself, causing its value to increase, which in turn causes your share to increase. The displayed percentage rate is obtained via the PancakeSwap API.

### 3.9.12 Which rewards get compounded?

Currently, all the farms get compounded except for the BUNNY Staking farm and the BUNNY/BNB farm.

When the user executes a Claim on their profits in a given Pool, they receive 70% of the profit's value in the respective auto-compounded farm token, and receive 30% of the profit's value in BUNNY.

### 3.9.13 What is the Fee Structure?

#### Withdrawal Fee

There is a 0.5% withdrawal fee from Farms only if a Withdrawal happens within 72 hours of deposit. This fee exists to maintain the smooth flow of the ecosystem and to prevent possible exploitation from individuals acting under bad faith. For example if there was no 0.5% withdrawal fee within the 72 hours, someone could keep depositing right before the compounding takes place and withdraw right after and still reap the same benefits and continuous long-term holders.

#### Performance Fee

When you choose to Claim profits from a pool, a 30% performance fee is collected to reward BUNNY stake holders. In return, all pools are rewarded with BUNNY tokens. For every 1 BNB in fees collected, 15 BUNNY is rewarded.

### 3.9.14 Can I make a partial withdrawal?

Yes. On the Pool screen:

1. Next to the "Deposit", tap or click "Withdraw"
2. Enter in the amount of Tokens you wish to withdraw or select "Max" to select all of your Tokens in the pool.
3. Tap the "Withdraw" button at the bottom

### 3.9.15 Why are the transaction fees so high?

The GAS LIMIT is the maximum amount of gas that can be spent on a transaction. In some pools the GAS LIMIT is set higher than others even on claim actions. This is due to the complexity of our contracts and to ensure the transactions do not fail in case of BSC instability or high transactions load.

Take note that the gas spent will be usually half of the gas limit set. You can always check the transaction on [bscscan.com](https://bscscan.com) to see more details.

### 3.9.16 Why does my balance decrease?

Your balance is the instantaneous sum of your deposited principal and your unclaimed profit at the moment that you claim and immediately redeposit the profit into the pool.

At some points, the balance may decrease because the price of tokens relevant to the pool may have fluctuated.

### 3.9.17 How does the timer work?

Withdraws within 72h will have a 0.5% fee applied. This timer is reset every time you make a new deposit. Claiming rewards on the pools that allow it does not reset the timer.

### 3.9.18 How is the profit calculated?

At the moment of withdrawal (exit & claim) the performance fee is exactly calculated (30% of profits) and BUNNY is rewarded.

### 3.9.19 Is there slippage using the ZAP function?

ZAP is based on PancakeSwap's swap feature so we can't control the slippage/IL associated with it.

### 3.9.20 Why is my TVL or Deposit showing 0?

If you see 0 tvl or 0 deposit just try refreshing your browser and reconnecting your wallet.

### 3.9.21 Why am I getting failing transactions?

Unfortunately this seems to be a common issue on the chain lately. Try increasing by 5 GWEI. When this happens, it is probably happening on PancakeSwap (and other projects as well), and it is generally fine if you use 18-20 GWEI.

### 3.9.22 What is Bunny's Roadmap?

Please view our roadmap on notion: [http://bit.ly/bunny\\_roadmap](http://bit.ly/bunny_roadmap) We have plans on expanding the variety of pools available, creating single asset vaults, arbitrage, and much more!

### 3.9.23 Who is behind Bunny?

The Bunny Project was created by a team of developers and blockchain specialists! Like all other Yield Aggregator Projects, we believe our code is who we are! Thus, we will ensure to provide full transparency and let our code speak for itself.



### 3.9.24 Is Bunny Safe?

Like all DeFi Projects, it is important not to trust but to verify the legitimacy of each project by confirming the data/code. As such we are providing full transparency by releasing all the code/data required to confirm that Bunny runs smoothly. Check out our github: <https://github.com/PancakeBunny-finance>

### 3.9.25 Is Bunny Audited?

Yes, Haechi Labs has completed the first audit. The results were extremely positive! The audit highlighted no critical or major issues, and two minor issues. One of the minor issues has been found on most well-known governance tokens and will not expose much issue/security risk to normal end-users. The other minor issue is an intended behavior.

Please see the report [here](#)

### 3.9.26 APR & APY

Let's assume the APR of the CAKE farm is 365%. This means that on average if we divide 365% by 365 days, we get a daily return of 1%. Now since Bunny compounds this 1%, we can estimate the compounded APR using the following calculation:  $(1+0.01)^{365} - 1 = 3678\%$  Keep in mind that this is an assumption that only holds true if the APR of CAKE farm stays constant through one year. However, this is obviously not the case since the APY also changes by the second. We can use the same calculation for the rest of the Farms as well! Just divide the APR by 365, which would be the average daily yield.  $(1+\text{daily yield})^{365} - 1 = \text{Compounded APY}$ .

The new maximizer farms put the daily yields from the Farms, into the CAKE compounding pools. The Stable Coin-BNB Farms have a current APY of 30%, but if we use the maximizer farms the APY increases to about 150%. This strategy is truly unique and advantageous since the principal investment does not get touched, and only the extra yields from the farm get invested in the more volatile, high risk-high reward CAKE pool.

### 3.9.27 How is the APY Calculated?

The APY on pool screen is the sum of the following rates:

[Pool APY] This the APY from the auto-compounding rate on the token of the pool you are staking.

[Bunny APY] This is the APY in BUNNY rewards you will receive based on the 30% Performance Fee collected from your total pool profits.

[Swap APY] This is an estimation of the increase in value of your LP tokens due to the rewards from the swap fees on PancakeSwap.

### 3.9.28 How often do Auto-Compounding Pools Compound?

The auto compounding varies from pool to pool. The current frequencies are: - Cake and Cake Maximizers: At least every 2 hours (harvesting when any user deposit or withdraws) - CAKE-BNB flips: Every 2 hours - Other flip pools: Every 4 hours - Single-Asset "Smart" Vaults: Every 2 hours

### 3.9.29 Why is there a Claim Button on Auto-Compounding Pools?

The Claim button is an extra option for those that wish to use it. It was a suggested and voted on by the users.

All pools that have “auto-compounding” or “compound cake recursively” in their description are auto-compounding the profits. The BUNNY figure that appears on the Profit line is what you would receive at the moment you choose to Claim.

## 3.10 Contracts

BunnyToken: 0xC9849E6fDB743d08fAeE3E34dd2D1bc69EA11a51

BUNNY Pool: 0xCADc8CB26c8C7cB46500E61171b5F27e9bd7889D

BUNNY-BNB Pool: 0xc80eA568010Bca1Ad659d1937E17834972d66e0D

Bảng1: Auto Compounding FARM Contracts

	Contract Address
CAKE	0xEDfcB78e73f7bA6aD2D829bf5D462a0924da28eD
CAKE-BNB	0x7eaaEaF2aB59C2c85a17BEB15B110F81b192e98a
BTCB-BNB	0x0137d886e832842a3B11c568d5992Ae73f7A792e
ETH-BNB	0xE02BCFa3D0072AD2F52eD917a7b125e257c26032
BUSD-BNB	0x1b6e3d394f1D809769407DEA84711cF57e507B99
USDT-BNB	0xC1aAE51746bEA1a1Ec6f17A4f75b422F8a656ee6
VAI-BUSD	0xa59EFEf41040e258191a4096DC202583765a43E7
USDT-BUSD	0xC0314BbE19D4D5b048D3A3B974f0cA1B2cEE5eF3

Bảng2: CAKE Maximizer Vaults Contracts

	Contract Address
CAKE-BNB	0x3f139386406b0924eF115BAFF71D0d30CC090Bd5
BTCB-BNB	0xCBd4472cbeB7229278F841b2a81F1c0DF1AD0058
ETH-BNB	0x41dF17D1De8D4E43d5493eb96e01100908FCcc4f
BUSD-BNB	0x92a0f75a0f07C90a7EcB65eDD549Fa6a45a4975C
USDT-BNB	0xE07BdaAc4573a00208D148bD5b3e5d2Ae4Ebd0Cc
VAI-BUSD	0xa5B8cdd3787832AdEdFe5a04bF4A307051538FF2
USDT-BUSD	0x866FD0028eb7fc7eeD02deF330B05aB503e199d4

## 3.11 Audits

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