

## **Brief Review of Binance Smart Chain Farms and Yield Optimizers (Draft February 17, 2021)**

### **DISCLAIMER**

Defi, yield farming and liquidity mining are the most risky ways to “invest” because one can lose 100% overnight for all types of reasons described below. Please see the other article: [Defi, Yield Farming and Liquidity Mining](#).

### **FARMS**

Farms are the decentralized applications (dapps) that pay interest income for deposits. There are generally three types of farms on Binance Smart Chain (BSC): lending sites, pure speculative farms, and swap sites.

#### **Lending Sites**

Lending sites to attract deposits for lending, such as Venus. Those sites pay a small interest typically lower than 15% annually, and lend the cryptos at a higher rate to generate income.

Venus.io is the largest lending site, with \$840 million total value locked (TVL) as of today.

#### **Pure Speculative Farms**

There are several new speculative farms showing up on BSC daily, and can quickly attract tens of millions of TVL.

#### **Pancakeswap Clones**

This type of farm is typically a clone of Pancakeswap, and operates as follows:

1. Creates an inflationary token with unlimited supply. Let us call it ZZZ
2. Emits one token or up to 50 tokens per tick, or every 3 seconds
3. Creates a set of farms for liquidity provider token issued by Pancakeswap, and assign a % of emission to each farm
  - a. This results in a very high annual interest rate for the liquidity mining pair ZZZ-BNB, typically starting with more than 1000% daily return, quickly dropping to 50% daily return or lower when new speculators begin to deposit
  - b. Many such sites do not even bother to require deposit on their sites, because people may not trust such sites enough to deposit funds there. Instead, those sites require Pancake LP tokens that do not benefit them at all. This is equivalent to a new bank saying “Bring me your deposit receipt

at Bank of America, and we will pay you 50% daily.” Only in this case, the interest paid out is in the form of ZZZ tokens, which do not cost anything to the new farm

When the new farm opens, many speculators will buy the new tokens to add to the liquidity pair, causing the token price to increase dramatically. With the farms producing new tokens at a high rate, many speculators would then sell the tokens, causing the token price to tank. When the price drops to a certain level, additional new speculators may consider it “cheap,” and buy up the price again. After a farm produces a high level of tokens, the new token emission rate becomes minor, and the token price stabilizes and can last for months.

Pancakeswap clones are the most risky sites because the original contract includes a “migrator code,” which enables malicious owners to steal any money you deposit.

### **Basis Cash Protocol**

There are several copies of basis cash protocol running on BSC, including bdollar.fi, midas dollar, monster slayer dollar, etc. Those sites creates three interdependent tokens. For example,

- In the Share room, both bdollar cash (BDO) and bdollar share (sBDO) emits sBDO, with sBDO-BNB at higher annual rates. When new speculators buy sBDO-BNB, it drives up the prices of sBDO. Since sBDO is the output of BDO, the interest rate for BDO increases, providing further incentives
- In the Boardroom, sBDO emits BDO at a much higher rate per epoch, when BDO is higher than \$1
- In the Bonds room, bdollar bond can be purchased if BDO drops below \$1

The amount of money chasing this type of Ponzi schemes is startling. Today bDollar Share room has a TVL of \$53 million, chasing APR less than 1,000%. When similar projects on ETH fall apart quickly, yield optimizers on BSC enables those BSC versions by producing a much higher annual interest rate, creating an illusion that the scheme can last forever.

### **Improved Farms**

To extend the life of the farm, many farms adopt some features to slow down the new token generation. Those measures typically include:

1. Halving. Like Bitcoin, a farm may decide to halve the token emission rate every week or month.

2. Eliminate non-ZZZ token pairs. Soups.finance seems to be the first site eliminating non-native token pairs. Any new speculators must buy the ZZZ token to join, and therefore keep inflating the token price
3. Charge a deposit fee. Goosefinance.com is the first site introducing a hefty deposit fee, 4% in this case, for any non-native tokens. Therefore, Goose uses the deposit fees of latecomers to burn tokens and maintains the token prices, a Ponzi scheme but can last a long time. If Goose eventually introduces other functions, it may actually transfer into a swap site. Its TVL increased dramatically to about \$70 million, far exceeding normal farms
4. Introduce deflationary attrition. Crowfinance.net has introduced a combination of token cap and token attrition, reducing token amount by 1% to 3% every time a token changes hand. This type of token is also known as Reflect Finance fork, RFI fork, or transaction tax tokens.

### **Swap Sites with Business Purposes**

Swap sites have true business purposes to attract liquidity providers for crypto swap, such as Pancakeswap.

- Pancakeswap creates its token CAKE and uses the token to attract everyone to provide liquidity mining, such as BNB-CAKE. The swap charges a 0.2% fee, with 0.15% going to the liquidity provider and 0.05% to Pancakeswap. Pancakeswap then uses the fee to buy back CAKE, and uses other actions such as lottery to reduce CAKE supply. With a TVL of \$1.5 billion, Pancakeswap is the most important and reliable farm on BSC.
- Streetswap is a minor competitor. It is being rebranded as part of Hyperjump
- Bakeryswap, burgerswap, and 0x1 Exchange et al also fall into this category: at least they require the deposits to put money on their sites.

### **YIELD OPTIMIZERS**

Yield optimizers are the decentralized applications (dapps) that compound interest incomes at a Farm. For example, Pancakeswap offers 0.4% daily return for providing CAKE-BNB liquidity pair, giving out interest in the form of CAKE. A yield optimizer will withdraw the interest in CAKE from time to time, sell half of CAKE for BNB, and add the new CAKE-BNB LP. With low transaction costs, 0.4% daily rate (or 135% APR) translates into 330% APY.

To enhance the return, some yield optimizers also create their own tokens and add to the interest income, and charge various fees to buy back their tokens. The resulting APY far exceeds interest income in real life.

### **Autofarm: \$1B TVL excluding AUTO**

Autofarm.network is the largest yield optimizer on BSC, with a TVL exceeding \$1 billion. Autofarm emits 230 tokens daily, or \$1.8 million day, to incentive depositors. It collects a lower deposit fee of 0.1%, which is far lower than \$1.8 million. Therefore, Autofarm does not compound the AUTO token it sends out, and hopes depositors would keep those tokens instead of selling them. With its token price increased from <\$100 a few weeks ago to \$8,000 today, some depositors are indeed keeping the tokens, extending the life of this practice.

Autofarm offers vaults for:

1. Venus
2. Pancakeswap or PCS
3. bDollar
4. Kebab, a pancakeswap clone
5. HECO chain tokens

### **Acryptos: \$300M TVL excluding ACS/ACSI**

Acryptos.com operates in a very similar fashion as Autofarm. It hands out about \$700,000 worth of tokens every day to deposits. Its fee structure is higher than Autofarm, but generates less than \$100,000 daily. The product offering is similar.

Acryptos has an interesting branch of StableSwap, which is the most efficient way to exchange one stablecoin to another. The StableSwap is incentivized by ACSI token instead of ACS token.

### **PancakeBunny: \$220M excluding BUNNY**

Pancakebunny operates similarly to autofarm and acryptos, but only compounds assets on Pancakeswap. It charges a hefty 30% management fee, in addition to withdraw fee. However, due to recent spike in token value, it offers the highest APY for some pancakeswap assets, especially single CAKE vault, autocompounding at 947%.

### **Beefy: \$140M TVL excluding BIFI**

Autofarm and Acryptos are similar to early internet companies, handing out free money to attract depositors at alarming burning speed. Therefore they don't compound their own tokens. On the other hand, beefy.finance is a true service provider, compounding interest without giving out free tokens. This business practice is the reason why it is not nearly as successful as autofarm or acryptos.

While autofarm and acryptos invest in relatively safe farms (I somehow disagree b dollar is a safe farm), Beefy chases opportunities at wild farms, with interest rate sometimes measures in B/P/Q/S, and whatever other numbers I am not familiar with.

### **JetFuel: \$50M TVL excluding Fuel/Jet**

Jetfuel.finance adopts a quite unique approach: it creates multiple ways to encourage deposits to keep their free FUEL token handout, and offers auto-compounding for some vaults. For depositors that do not want to manual compound at all, it is an attractive service. Jetfuel also has its own Launchpad for new BSC projects, further enhancing the value of withholding FUEL.

### **Other Smaller Firms**

There are a few smaller providers such as thugs.fi and fryworld, but operate at a much smaller scale.