



# POLYSHIELD WHITEPAPER V1.0

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# INTRODUCTION

A shield is defined as a *"piece of personal armour which is held in the hand"*. Shields have been used by all kinds of people throughout the ages for a wide variety of purposes. Whether it is to intercept and repel attacks, block some form of access, or, most importantly, to provide passive protection to the shield bearer at all times.

Yield farming is a fantastic way to use your assets in a practical way, where you farm tokens as a reward. As a cornerstone product under the umbrella of DeFi (Decentralized Finance), yield farming has grown into an incredibly large market cap asset class.

Although many good things can be said about the many farms that exist, it is evident that the market has reached a point of saturation, where scams and "rugpulls" have become the standard. This can be said for a large number of the farms on any of the current blockchains that offer smart contract products. The most prominent examples would be the following blockchains:



Ethereum (ETH)



Polygon (MATIC)



Avalanche (AVA)



BinanceSmartChain (BSC)



KuCoinChain (KCC)

# POLYSHIELD

Having been intimately involved in cryptocurrency development from an early stage, the PolyShield team decided to develop this yield farm using the Polygon blockchain. This was an easy decision to make, as Polygon has proven itself to be a very robust layer 2 solution to Ethereum. This means we get most of the benefits of the Ethereum blockchain, without the downsides; these downsides mainly being Ethereum's high transaction fees and its slow block speeds.

Polygon offers a truly decentralized solution for DeFi enthusiasts, where the transactions are extremely fast and incredibly cheap. Despite these benefits, Polygon is still considered in its early DeFi stages. This gives ground for a very innovative space but unfortunately it has also opened the doors to many exploits and scams. This is partly due to the nature of decentralization, where there is no "real" authority that can regulate the space. As such, Polygon has recently become a victim to scams and liquidity pulls, being released by rogue devs with malicious intent.

They say that "necessity is the mother of creation". As such, it was clear that there was indeed a necessity; the creation of a yield farm on the Polygon blockchain that was SAFE, SECURE, SUSTAINABLE.

## SAFE, SECURE, SUSTAINABLE.

As such this became the motto of PolyShield.Finance. This project was built with the core foundation that it will become the golden standard for Polygon farms. The PolyShield.Finance developers have dedicated their time and resources towards building the safest yield farm possible, where users can comfortably deposit their assets without worry of waking up to an "exit scam" or liquidity drain.

Every single one of the PolyShield smart contracts has been developed with care, from the ground up, with maximum focus on security. The smart contracts will be audited by at least 2 auditing firms, for additional assurance of quality.

# THE SHI3LD TOKEN

**SHI3LD** is the native token of the PolyShield.Finance ecosystem. **SHI3LD** is an inflationary token with an initial supply of 1,000 (Only 1,000 **SHI3LD** tokens were initially minted for farm generation purposes). The PolyShield Masterchef smart contract is programmed to start minting **SHI3LD** on the predetermined genesis block.

The PolyShield Masterchef smart contract is the only source for any **SHI3LD** tokens that will ever exist or circulate. The smart contract is programmed to follow very specific rules so as to always auto-regulate the minting rate of **SHI3LD** tokens. **SHI3LD** has a Variable Emission Rate. This means that the smart contract has been designed with a very intelligent bonding curve that will always strive to balance the minting rate against the price and inflation of the token in the open market.

You can see more specific details in the Variable Emission Rate section.

**SHI3LD** is ultimately a governance token, but it comes with the benefits of staking and liquidity pool farming, with very attractive APYs.

At first, the **SHI3LD** token cannot be bought or sold on QuickSwap due to liquidity. The optimal method to obtain **SHI3LD** tokens is through farming and harvesting them. After people have claimed their **SHI3LD** tokens they can add liquidity to either the SHIELD-MATIC farm or the SHI3LD-USDC farm, thus enabling anyone to buy SHI3LD on QuickSwap, in exchange for MATIC or USDC.

The **SHI3LD** Vault and Farms yield the highest APY, making them a valuable place to provide liquidity.



# TOKEN SPECIFICATIONS

SHI3LD

TICKER

1/BLOCK

INITIAL EMISSION RATE

POLYGON

CHAIN

\$1-\$100

VARIABLE EMISSION RATE PRICE RANGE

ERC20

STANDARD

0

PRE-SOLD TOKENS

1,000

INITIAL SUPPLY

0

TEAM TOKENS

~

MAXIMUM SUPPLY

0

MARKETING TOKENS

\$1

INITIAL PRICE

VARIABLE

EMISSION RATE

LINKS

CIRCULATING SUPPLY

BURNED SUPPLY

CIRCULATING SUPPLY

# VARIABLE EMISSION RATE

The PolyShield emission rate is calculated based on a curve with input from the current token price in USD.

The curve operates within a price range. Outside this range the emission rate will be either 100% (below bottom price) or 1% (above top price). The initial range will be set to 1 USD bottom and 100 USD top.

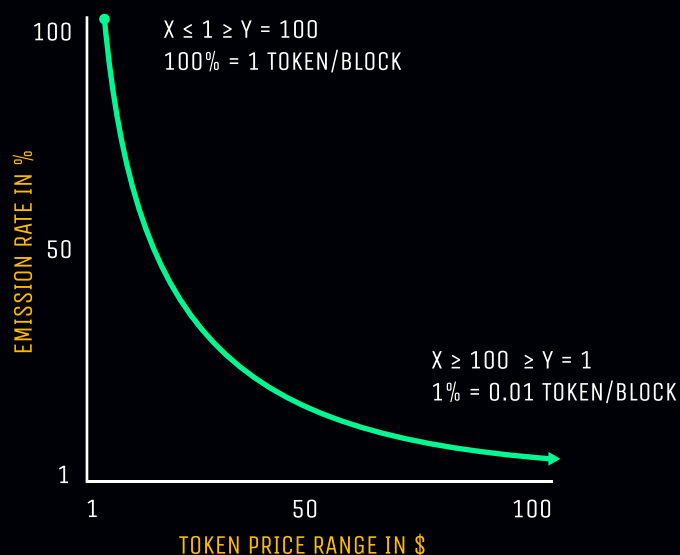
When the price of SHI3LD leaves this range the team will adjust the range accordingly. For example it might make sense to have the range between 50 and 150 USD.

The curve equation is below and starts with a curve rate of 5.

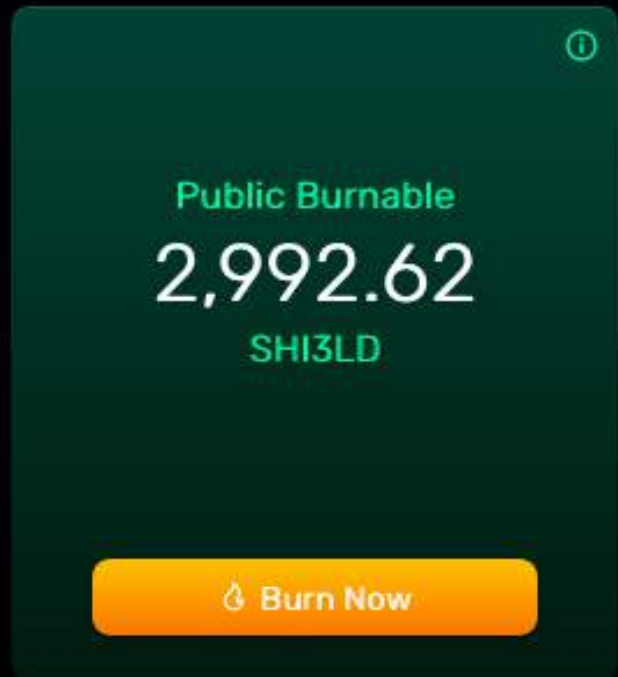
$$y = \frac{1}{\text{curveRate}} (100 - x) + \left( \frac{100}{x} \right)$$

The token price is calculated by comparing the balance of the SHI3LD/USDC LP held by the tokens SHI3LD and USDC on QuickSwap.

The graph below shows how the curve affects the emission rate depending on the token price within the specified range. As the price increases, the emission rate drops to a minimum of 1% of 1 SHI3LD per block.



# PUBLIC BURN FUNCTION



It has become somewhat of a standard in DeFi yield farms where 10% of all minted tokens emitted into supply go directly (or indirectly) to the dev team. At PolyShield.Finance, things are a little different.

Our dev team does not receive any share of the minted SHI3LD tokens. Instead we chose to direct 10% of all minted tokens to a burner contract that has only one function:

- To allow anyone to burn the current amount of tokens pending to be burned

A provision has been added to the MasterChef contract that will split this 10% into 5% for burning and 5% to go towards the NFT system when it is implemented as part of the product roadmap.



# POLYSHIELD FARMS

A farm is a DeFi product which allows you to stake your liquidity pool tokens (LP) and in return yields you tokens as a reward.

In our case you can provide liquidity to certain liquidity pools on the QuickSwap DEX, and then stake your LP tokens in our farms, and as a result you will be able to harvest SHI3LD tokens, which are minted every block.

<https://polyshield.finance/#/farms>

The amount of SHI3LD you will be able to harvest depends on the APY of the liquidity pool you choose. The APY represents how much percent gain you can make per year on your USD value staked (if the price and liquidity were to remain constant at time of calculating the APY).

PolyShield.Finance currently offers these LP farms:

LP	MULTIPLIER	DEPOSIT FEE
SHI3LD-MATIC	50X	0%
SHI3LD-MATIC	50X	0%
USDC-WETH	20X	4%
MATIC-QUICK	20X	4%
USDC-USDT	10X	4%

## **APY & ROI**

*The amount of SHI3LD earned is estimated based on the current emission rate, the percentage of liquidity pool held, SHI3LD token price and an investment of \$1000 worth of the liquidity pool asset.*

*APY estimates are not guarantees and are subject to change depending on token price and emission rates.*

# POLYSHIELD VAULTS

A vault is a DeFi product which allows single asset staking, and in return yields reward tokens which are accumulated every block.

This means that you don't have to deal with liquidity pools and their lengthy process if you don't want to. Simply go to the Vaults page, pick your chosen Vault, and then stake with 2 transactions. As a result you will be rewarded with SHI3LD tokens which you can track in real time on our website.

<https://polyshield.finance/#/vaults>

The amount of SHI3LD tokens you can harvest depends on the APY of your chosen Vault. The APY represents how much percent gain you can make per year on your USD value staked (if the price and total amount staked were to remain constant at time of calculating the APY).

PolyShield.Finance currently offers these Vaults:

LP	MULTIPLIER	DEPOSIT FEE
SHI3LD	40X	0%
WETH	30X	4%
QUICK	20X	4%
WMATIC	10X	4%
USDC	10X	4%

## **APY & ROI**

*The amount of SHI3LD earned is estimated based on the current emission rate, the percentage of your stake vs total staked, SHI3LD token price and an investment of \$1000 worth of the staked asset.*

*APY estimates are not guarantees and are subject to change depending on token price and emission rates.*

# NFT MULTIPLIER SYSTEM

The NFT Multiplier system is one of the most exciting implementations to be added to the PolyShield.Finance ecosystem.

When activated, 5% of the current SHI3LD minted during emission will go into the NFT system where it will be available to NFTs.

A suite of NFTs (non-fungible tokens) will be released through our own marketplace, where each will have a set Multiplier and Timer.

- The Multiplier represents what share of the total SHI3LD allocation will be made available to the NFT.  
10x, 20x, 30x etc.
- The Timer represents how long the NFT will be effective.  
3 hours, 7 days, 30 days etc.
- Different NFT's will have different combinations of the two parameters, and as such a secondary market of NFT's will naturally develop where the community will settle on appropriate prices for the NFT's, depending on their rarity and usability.

With this system, NFTs can be bought and then resold for higher prices (flipped), or the NFTs can be used to amplify the yields of the farms and vaults. Depending on circumstances, both options can yield fantastic results.

Simply put, you can look at your NFTs as yield multipliers or as collectibles. The final choice is yours.

## NFT FUND SPLIT

All proceeds from the NFT market will go towards either:

- Market buying SHI3LD and burning it
- Adding SHI3LD liquidity to the existing LP's

The team will not receive any share of the sells.

Additional bonuses will be available to addresses that have participated in the Public Burn Function

# TIME LOCK MANAGEMENT

All key admin functions on the MasterChef contract which controls the emission of SHI3LD to the farms and vaults are controlled by a TimeLock contract.

The Time Lock system queues transactions for to 12 hours to prevent immediate action by administrators that might affect the value of the farms or deposits.

Initially this is disabled to allow the setup of the farms and vaults in a timely way. As soon as the initial configuration is complete and minting has begun, the Time Lock will be enabled for additional security.

## CONTRACTS & AUDITS

### POLYSHIELD

<https://polygonscan.com/address/0xf239e69ce434c7fb408b05a0da416b14917d934e>

### MASTERCHEF

<https://polygonscan.com/address/0x0Ec74989E6f0014D269132267cd7c5B901303306>

### TOKEN BURNER

<https://polygonscan.com/address/0xfbb307fea8cdaf614b66f82d8d233c947b07c4f5>

### AUDITS

[https://github.com/polyshield-finance/audit-reports/blob/main/HazeSecurity\\_Polyshield.pdf](https://github.com/polyshield-finance/audit-reports/blob/main/HazeSecurity_Polyshield.pdf)

# OFFICIAL LINKS

## WEBSITE

<https://polyshield.finance/>

## GITHUB

<https://github.com/polyshield-finance>

## SHI3LD-USDC:

<https://info.quickswap.exchange/pair/0x0ca257a6cae5c89826daae3be0a64170e34493c5>

## SHI3LD-WMATIC

<https://info.quickswap.exchange/pair/0x982c1f90381e31e7b7dbba8708126532b7cb7df6>

## SHI3LD SMART CONTRACT

<https://polygonscan.com/address/0xf239e69ce434c7fb408b05a0da416b14917d934e>

## TELEGRAM GROUP

<https://t.me/polyshield>

## TELEGRAM ANN

<https://t.me/polyshieldann>

## DISCORD

<https://discord.gg/SqTY3whkFb>

## TWITTER

<https://twitter.com/TeamPolyShield>

## GITBOOK

<https://docs.polyshield.finance/>