



# ACryptoS (ACS)

Introduction to Advanced Yield Farming Strategies on the  
Binance Smart Chain with ACS.

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February 2021

## DISCLAIMERS

This document is compiled by a community member. All views offered are my own - a laid person with no financial investment background - nothing in this document should be construed as investment advise.

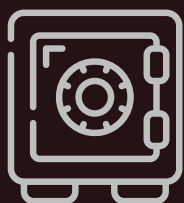
If this document helps in understanding how ACS works and what it is all about, the mission of this introduction is fulfilled.

As an introduction, this document is not encompassing even close to all there is to know about advanced yield farming strategies with ACS, and as with all investments in the crypto space - Doing Your Own Research (DYOR) is highly recommended.

Investing into high yield products comes with significant risk - only invest what you can afford to lose comfortably!

# OVERVIEW

ACryptoS offers three distinct products on the Binance Smart Chain, yield optimizing Vaults, a decentralized exchange for stable coins and the ACryptoS Farms. All products are available through the website <https://app.acryptos.com>.



## VAULTS

**ACryptoS Vaults** grow underlying assets via automated yield strategies. By investing the combined amount of the underlying asset of all users into farming pools of Venus and Pancake, a more frequent and effortless compounding strategy can be applied due to far more efficient gas utilization and other creative automations.

Functionally, tokens deposited into vaults grow over time without the need to manually harvest the vaults.



## STABLESWAP

**ACryptoS StableSwap** is an automated market maker (AMM) protocol based on Curve's specialized algorithm tailored for stable coins. ACryptoS is offering the first AMM for stable coins based on this algorithm on the Binance Smart Chain, making it ~10x cheaper and providing ~100x less slippage when trading stable coins compared to the various UniSwap type AMMs available.

Trading on the Binance Smart Chain is both faster and significantly cheaper than trading on the Ethereum chain. ERC-20 Tokens can be crossed over from Ethereum to Binance Smart Chain via the [Binance Bridge](#).



## FARMS

**ACryptoS Farms** are the places where native tokens of ACryptoS, namely ACS and ACSI come into this world. Once assets are deposited into a Vault or StableSwap product, users have the option to stake the vault or liquidity tokens they receive back respectively into the corresponding farm.

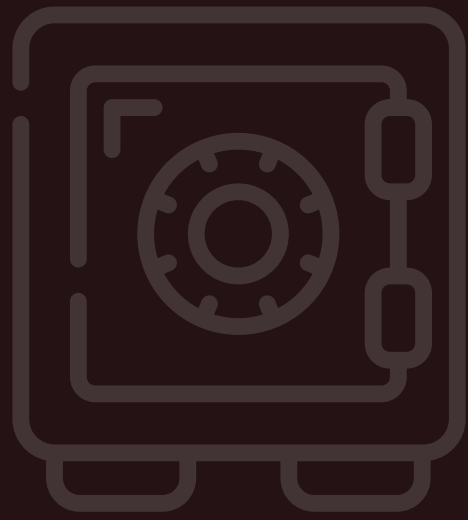
ACryptoS Vault tokens will yield ACS, and ACryptoS StableSwap Liquidity Provider tokens will yield ACSI as reward in their respective farms.

Farms do not automatically compound and require manual harvesting by the user. Auto-compounding Vaults for already harvested or purchased ACS and ACSI tokens are being offered on the platform as well.



# QUICK START

## VAULTS



### 1. DEPOSIT

DEPOSIT

Deposit tokens from your wallet to the vault -> Start earning interest in the same token you supplied immediately. Keep in mind that any amount withdrawn from a vault is subject to a 0.5% withdrawal fee. Interest automatically compounds and gets re-invested so assets grow quickly in the vault.

### 2. STAKE

STAKE

After successfully depositing tokens into a vault, you receive vault tokens representing your deposit. The STAKE button appears and you can stake those vault tokens into the token's farm to earn ACS, the native token of ACryptoS.

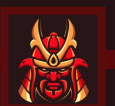
### 3. HARVEST

HARVEST

As your ACS rewards accrue on the farm, you want to periodically harvest the pending ACS rewards. Please note, harvesting will also be called when staking new vault tokens to the farm or when removing vault tokens from the farm. A harvest fee of up to 1 ACS applies to each harvest.

The harvest fee will only be levied on accrued and pending ACS and will never be more than 1 ACS. If you only accrued 0.5 ACS you can still unstake your tokens, but you forfeit the ACS bonus yield.

Withdrawals from vaults are subject to withdrawal fee! 0.5% of withdrawn principal will be levied for all vaults except the ACSI and ACS native token vaults where the withdrawal fee is 10%. The fees are used to buy back ACS and ACSI from the market and to distribute native tokens to their respective vaults. These fees are essential components of the ecosystem, supporting the long-term viability of ACryptoS native tokens and the protocols value to investors.



# QUICK START

## STABLE SWAP



### 1. DEPOSIT

DEPOSIT

Deposit stable coins to provide liquidity to one or more of the ACryptoS AMM pools. As a liquidity provider you will receive 50% of the swap fees paid by users using the exchange. You will receive liquidity provider tokens which you can stake in the next step into an ACSI farm to receive ACSI bonus rewards.

### 2. STAKE

STAKE

After successfully depositing you stable coins, you receive LP tokens representing your deposit. The STAKE button appears for the farm your tokens can be staked at to receive bonus yield in form of ACryptoS' native token ACSI. For example: ACS4USD.

### 3. HARVEST

HARVEST

As your ACSI rewards accrue on the farm, you want to periodically harvest the ACSI rewards. A harvest fee of up to 10 ACSI applies to each harvest. Staking more ACryptoS StableSwap tokens or removing tokens from a StableSwap farm does not call the harvest function. You can add and remove tokens as often as you like and keep your accrued yield on the farm.

Withdrawing stable coins from StableSwap pools does not incur any fee. Be mindful of slippage when withdrawing assets though - especially for underrepresented tokens in the pool.





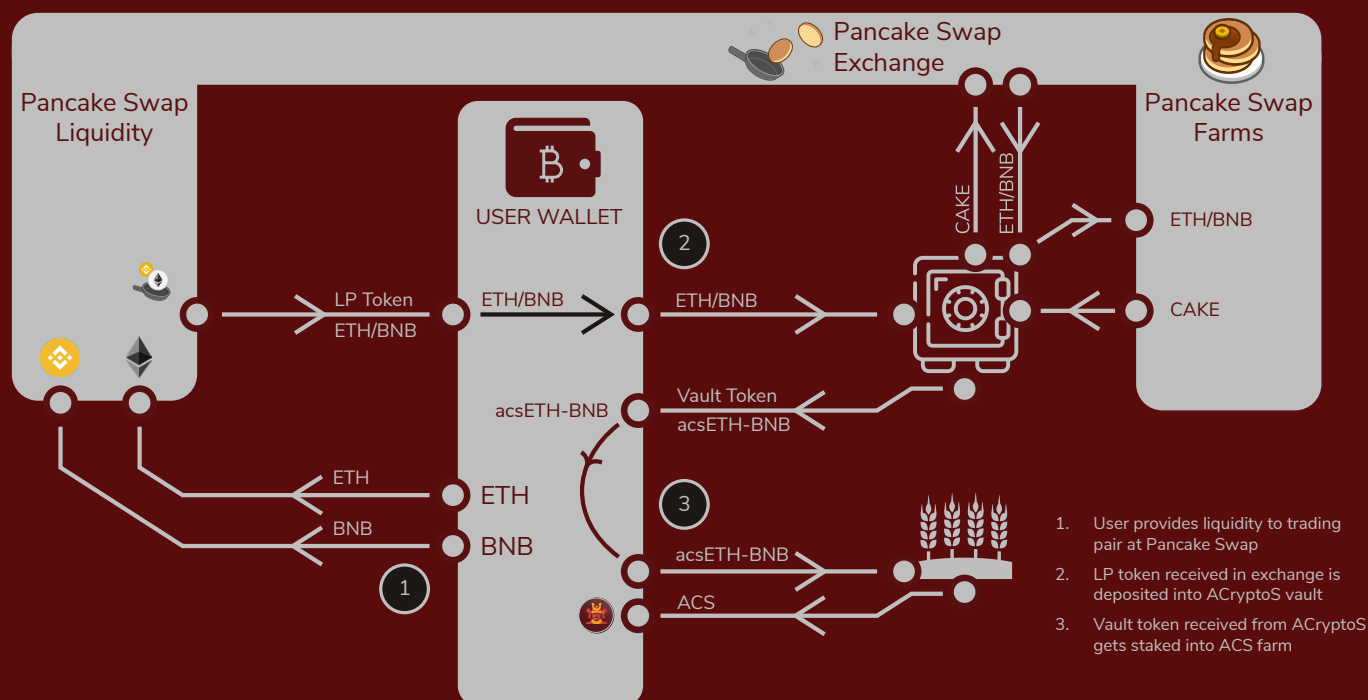
# VAULTS

All ACryptoS vaults behave functionally identical on the user side. The deployed strategy and automations that happen inside the vault are however different. For Pancake Swap, the same principles apply to Single Asset (SA) and Liquidity Provider (LP) token vaults. The user flow is a bit different and LP tokens carry two types of interest on the principal as opposed to SA tokens which carry only the first.

1. All Vaults compound the underlying asset through reinvesting the yielded return into the same asset (or, in the case of the core vaults, through emissions and fees). This is represented on ACryptoS as **Vault APY**.
2. LP tokens represent a position in both underlying tokens. As one token gets swapped for the other on Pancake Swap, the position in the pair increases due to the fees involved on the Pancake Swap platform. This is represented on ACryptoS as **Swap APY**.

Unrelated to ACryptoS vaults, the provision of liquidity to Pancake Swap trading pairs carries impermanent loss risks which - this introduction assumes - the interested reader is familiar with.

## PANCAKE SWAP (Liquidity Provider Farming Vaults)



The above diagram holds true for all Pancake Swap LP vaults. Please note however, the ACryptoS native token liquidity pairs on Pancake Swap (ACS-BNB and ACSI-ACS) do not offer a vault. Instead the Pancake Swap liquidity tokens are directly invest-able into ACryptoS farms.





# VAULTS

Single Asset Vaults come in three fashions on ACryptoS:

1. The two Core Vaults - for ACS and ACSI - the native tokens of the ACryptoS ecosystem
2. The Pancake Vault - for Cake only
3. Venus Vaults - for currently all other single asset vaults.

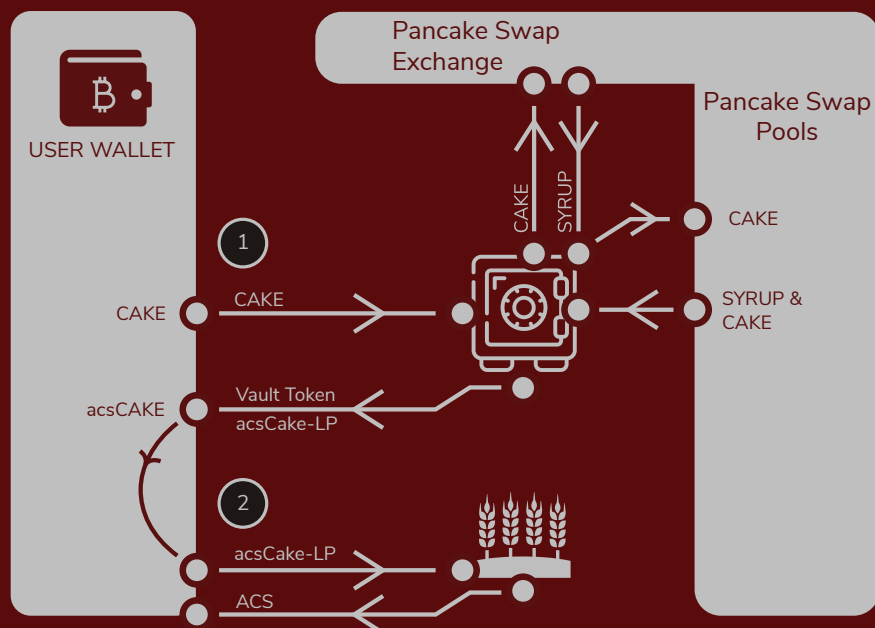
The strategies and automations applied are different for all three vault types.

Core Vaults do not re-invest assets elsewhere, they receive their yield from the ongoing emission of ACS and the collection of various fees throughout the ecosystem of ACryptoS.

The Pancake Vault perpetually re-invests into the Cake Syrup pool on Pancake Swap and automatically compounds the returns frequently leading to a higher yield than simply depositing into the Syrup pool on Pancake Swap directly.

Venus vaults have a more complex investment strategy. From the user perspective they operate identical to other single asset vaults, as in, they grow the underlying asset. In order to achieve this, the vault deposits the underlying asset as collateral on the Venus platform and then takes out a loan in the same token. This is being done perpetually to increase the yield opportunity for the provided liquidity. Since the collateral and the borrowed assets are identical, the liquidation risk is minimal.

## PANCAKE SWAP (Single Asset Vault) - CAKE



1. User provides Cake to the ACryptoS vault which will invest it into the Pancake Swap Cake Pool and receives SYRUP in exchange
2. User invests the ACryptoS vault tokens into the ACS farm to receive ACS rewards





# VAULTS

## User Interface

This section is aiming to explain the UI and connect it to the functional ideas described for vaults before. To exemplify the UI we are looking at the Venus Platform SA token vault for BNB.

## Top Line items of the UI

### Principal Asset

ACryptoS provides vaults for single coins like BTC, ETH, etc., and vaults for liquidity provider tokens from Venus and Pancake Swap currently. Here: BNB

### Platform

Here: Venus

### APY

The APY shown is the sum of Vault APY and ACS APR – more on both can be found on the right.

### Daily

Projected daily return of the asset at current APY – please note that since APY is a compound value, the return is split into two currencies – the Principal Asset and ACS – ACryptoS native token.

### TVL

Total Value Locked in this vault currently.

### Balance

Principal Asset amount under users control – This will always show the sum across a users wallet, the vault and the farm.

Principal Asset	Platform	APY	Daily	TVL	Balance
BNB	Venus	87.6%	0.23%	\$821K	\$6.8K
Vault APY:	33.2%	Wallet:	0.59 BNB (\$30.92)		Deposit
Vault APR:	28.7%	Vault:	0.1 BNB (\$5.21)		Withdraw
Vault Daily:	0.0788%	Vault&Farm:	129.65 BNB (\$6,757.51)		Stake
ACS APR:	54.4%	Pending:	9.14 ACS		Unstake
ACS Daily:	0.149%				Harvest
ACS Weight:	2X				
Risk Warning					

## Detail Section of the UI

In the Detail Section users find more information about the overall performance over the last three days, the type of returns and the distribution of funds under their control.

### Vault APY and Vault APR

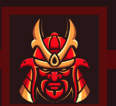
Average performance of the vault over the last three days. Vault APR represents the current static return without compounding and is only given as additional information. Vault APY represents the expected return rate as it includes automatic compounding.

### Vault Daily

The expected growth per day of the Principal Asset at current APY. This shows by how much your Vault Balance is estimated to increase daily.

### ACS APR, ACS Daily

After depositing the Principal asset into a vault, users will receive vault tokens which can be staked in farms to receive ACS rewards. The ACS APR represents the ACS rewards the users vault tokens are eligible to receive if staked. ACS farmed in this fashion will not automatically compound – users will have to manually harvest their pending ACS.





# VAULTS

## Dynamic User Interface, Functionality and Important Fees

ACryptoS interface has received much praise for its level of detailed information. Given the complexity of functionality and the different fees involved - a UI and Fee overview is detailing major functions below. Please note - the UI of ACryptoS is dynamic - only buttons available to you will be displayed.

Principal Asset	Platform	APY	Daily	TVL	Balance
BNB	Venus	87.6%	0.23%	\$821K	\$6.8K
Vault APY:	33.2%	Wallet:	0.59 BNB (\$30.92)		Deposit
Vault APR:	28.7%	Vault:	0.1 BNB (\$5.21)		Withdraw
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ACS Weight:	2X				
Risk Warning					

Function: Deposit your asset (i.e., BNB) to vault.

Fee: No fee associated other than gas fees  
**Note Withdraw notes below**

Notes: Your asset is earning interest as shown under "Vault APY/APR" immediately after depositing

DEPOSIT

Function: Stakes vault tokens to earn ACS

Fee: **Triggers Harvest Function (below)**

Notes: By staking your vault tokens, you are receiving ACS rewards as per the section "ACS APR" in the description of your vault.

STAKE

Function: Withdraw your asset (i.e., BNB)

Fee: **0.5% of amount withdrawn**

WITHDRAW

This button only appears if you have vault tokens in your wallet (acsVBNB in this case) – if you have staked all your vault tokens, the button will simply not be visible.

Function: Removes vault tokens from earning ACS

Fee: **Triggers Harvest Function (below)**

Notes: Once un-staked, you no longer receive the ACS portion of the interest. Your asset will continue to earn Vault interest until you withdraw it.

UNSTAKE

Function: Harvester accrued and pending ACS from the farm

Fee: **Up to 1 ACS (only charged from already accrued amount)**

HARVEST

This function can only be called manually once you have accrued 1 ACS – before then, the button does not show up in the interface. Staking and Unstaking buttons will call Harvest even below 1 ACS – the entire amount accrued, up to 1 ACS, will be charged as fee and distributed to the ACS vault. ACS will never be charged from your wallet!

Note: Stake and Unstake buttons do not call the Harvest function for the following farms: ACS4USD, ACS4UST, ACS4VAI, ACS4QUSD, ACSE-ACS





ACryptoS offers farms that allow users to receive awards in the platform's native tokens ACS and ACSI. All offered farms operate identically but there are some differences in fees.

Almost all ACryptoS Farms require users to first deposit an asset into one of the LP or SA vaults and then stake the resulting vault token into the respective farm. There are two notable exceptions:

1. Core liquidity tokens from Pancake Swap (ACS-BNB and ACSI-ACS) can be staked directly to a farm on ACryptoS
2. ACryptoS StableSwap liquidity provider tokens (ACS4USD, ACS4VAI, ACS4UST, ACS4QUSD) can also be staked directly to the provided farms.

ACryptoS Farms receive ACS and ACSI through protocol distribution - currently approximately 2,560 ACS / ACSI across all farms per day. The amount available per farm is determined by the amount of farms and the reward factor which are both controlled through governance - its safe to say that the factor usually grows with TVL per farm - but there are promotional exceptions to this guiding principle.

Users accrue their part of the daily ACS or ACSI reward per farm based on their share in the pool. ACS and ACSI rewards are shown as ACS / ACSI APR on ACryptoS which represents the amount of ACS / ACSI projected to be earned based on the dollar value of the underlying asset in the farm and the current market price of ACS / ACSI.

Farms do not automatically compound their returns and a fee applies to harvesting the accrued yield. The harvesting fees are only deducted from accrued yield and never from a users wallet and they are capped to a fix value.

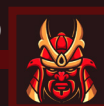
ACS Farms - Harvest Fee up to 1 ACS

ACSI Farms - Harvest Fee up to 10 ACS

Staking to and Unstaking from an ACS farm<sup>\*)</sup> will call the harvesting function first - this is unfortunate for staking additional tokens to the farm as the fee associated with it does not encourage frequent increases in users' positions.

Harvesting fees from all farms are collected and added to the rewards of the native token vaults for ACS and ACSI respectively.

<sup>\*)</sup> The ACSI farms (ACS4USD, ACS4UST, ACS4VAI, ACS4QUSD, ACSI-ACS) do not trigger the harvest function upon staking and unstaking.



# TOKENOMICS

The ACS ecosystem is built on the idea of sustainability and longevity. This is why users will find fees associated to various functions such as withdrawal of principal assets and harvesting. ACryptoS is designed for users who want to deploy mid to long-term yield strategies, not for quickly going in and out of pools and chasing the latest hype coin.

## ACS and ACSI protocol emissions

The base supply is currently set to 0.088888 888888 888888 for both ACS and ACSI per block (~ 2,560 ACS/ACSI per day) which goes directly to the farms. On top, there are three additional emissions all based on the base supply

1. ~ 853 ACS and ACSI (33.33%) are distributed directly to the native token vaults (ACS and ACSI Vaults)
2. ~ 256 ACS and ACSI (10%) are distributed as reward to the ACryptoS Dev Team
3. Up to 3% of supply may be minted for the ACryptoS treasury

~ 3,670 ACS and ACSI are emitted daily in total by the protocol.

The total supply of ACS is capped at 1,888,888. The current circulating supply can always be seen on the website. There is currently no cap on ACSI.

All parameters are subject to change by governance in the future.

To sustain the ecosystem, ACryptoS has deployed a number of fees, all of which are levied to increase the value of the native tokens and make the system work for the long-haul journey we are on.

The ACS and ACSI vaults have a high withdrawal fee of 10% by design. Staking ACS will award users with voting rights in community and DAO proposals in addition to a significant portion of the fees generated throughout the ecosystem. In fact, the 10% withdrawal levy will be distributed back to the vault it is taken out of.

There are smaller but not inconsiderable withdrawal fees of 0.5% on all other vaults as well. This levy is applied to the withdrawn amount - if users withdraw 100 BNB from the BNB Vault, they receive 99.5 BNB. The remaining 0.5 BNB will be used to buy back ACS tokens from the market and distribute them to the ACS vault.

All farms on ACryptoS have a harvesting fee associated to them:

ACS farms currently up to 1 ACS

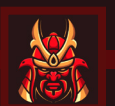
ACSI farms currently up to 10 ACSI

Harvesting fees levied from farms will be distributed to the ACS and ACSI vaults.

StableSwap Exchange fees for users swapping coins are 0.04% for ACS4USD base pool and 0.06% for ACS4XXX meta-pools. 50% of the exchange fee is used to buy back tokens for the ACSI vault and 50% go to the liquidity providers.

Lastly there are a performance and harvester fee of 5.3% levied on gains only. 0.3% of gains go to harvesters to offset gas fees up to 0.5% is given to the strategy creator. The remaining 4.5-5% of the performance fee is used again to buy back ACS from the market and distribute it to the ACS vault. These fees are already calculated into the yield displayed and users will not see them anywhere.

More information on Harvesting and Withdrawal fees - together with the implications for potential investment strategies - can be found on the next page.



# FEES

ACryptoS has deployed a fee and incentive structure designed to encourage long term investment. Accordingly, investing into advanced yield farming strategies with ACS requires users to understand the fees associated with each product to be able to make an informed decision.

All fees are subject to change by governance - which is at this time centralized with a Core DAO group and community voting system in place to inform decision making.



## Fees associated with Vaults

**0.5% / 10%**

Vaults compound the deposited assets automatically. If users deposit CAKE for example, their amount of CAKE in the vault increases over time. There is no fee associated with depositing tokens into vaults.

When you withdraw assets from a vault a withdrawal fee is taken as a percentage from the amount you withdraw.

All Venus and Pancake vaults have a 0.5% withdrawal fee.

The two core vaults for the ACryptoS native tokens ACS and ACSI have a withdrawal fee of 10%.



Please note the following products do not offer vaults, only farms - accordingly vault withdrawal fees do not, but Farm fees (see above) do apply:

ACS-BNB, ACSI-ACS, ACS4USD, ACS4VAI, ACS4UST, ACS4QUSD

Since the withdrawal fee is applied to the asset deployed, users will be at risk of losing a portion of their assets if they move assets into and out of vaults frequently. The fees are designed to discourage short term staking and encourage mid to long-term staking.



## Fees associated with Farms

**UP TO 1 ACS / 10 ACSI**

Harvesting is associated with a fee of up to 1 ACS for Vault Token Farms and up to 10 ACSI for StableSwap LP Token Farms. Since the ACS and ACSI rewards can be a substantial portion of the overall return a given Token can generate, users need to deploy their own harvesting strategy.

Example: Where users call the harvest function after accruing 2 ACS, they lose 50% of the ACS rewards yielded (1 ACS to their wallet, 1 ACS in fees). Harvesting at 10 ACS leads to a 10% forfeiture of yield (9 ACS to wallet, 1 ACS in fees), harvesting at 100 ACS leads to a 1% forfeiture of yield and so on.

The Harvesting function is being called by the Staking and Unstaking functions of all ACS farm contracts automatically - if a user has accrued less than 1 ACS the harvest function will only charge the amount already accrued. Users will never have to pay Harvest fees from their wallet.

\*) The ACSI farms (ACS4USD, ACS4UST, ACS4VAI, ACS4QUSD, ACSI-ACS) do not trigger the harvest function upon staking and unstaking.



# RISKS

## RISK WARNING

ACryptoS is currently in Beta. You may use this project at your own risk. No warranties are given.

### Dev Team Access to the ecosystem

Dev Team can control all assets in Vaults behind a 48 hour time-lock.  
Dev Team can mint ACS token behind a 48 hour time-lock.  
Dev Team can mint ACSI token behind a 48 hour time-lock.  
Dev Team can control all reward parameters of ACS Farms behind a 6 hour time-lock.  
Dev Team can control all reward parameters of ACSI Farms behind a 6 hour time-lock.  
Dev Team can control all fee parameters of StableSwap behind a 72 hour time-lock.  
Dev Team can control destination of StableSwap admin fees.

ACryptoS Dev Team cannot control assets in Farms.  
ACryptoS Dev Team cannot control assets in StableSwap.

### Other Risks

Smart contract risks, both ACryptoS contracts and third parties where ACryptoS interacts with.  
Risks in underlying assets and smart contracts.  
Risk of "Impermanent loss"  
Risk of StableSwap assets losing their pegs.

### APRs / Returns

APRs / returns shown on the UI do not include all fees, which will result in a negative return if you enter and exit a position quickly.  
High returns / APRs almost certainly mean a high risk. The calculated APR / return depends on the underlying value of the token in the vault and the token(s) being farmed, including ACS and ACSI, which can be very volatile and / or inflationary.

### Smart Contracts

The project has been audited by DefiYield.  
Check the full audit report [here](#).

Smart contracts are forked from yearn.finance (Vault, Controller, Strategy), SushiSwap (MasterChef), Uniswap (Uni), Curve (StableSwap).

### Deployed

All deployed contracts have [verified and published source codes on BscScan](#).





# FINAL NOTES

This document has hopefully been helpful to you - at least you made it to the last page. :)

There are many more resources both from the team and the community available online. I encourage you to check out all the material and do your own research before investing with ACryptoS.

The Community of ACryptoS has been a spectacularly positive experience and a joy to be a part of. Visit us on the projects community channel on telegram, there is always someone online that can answer any question you might still have.

Project Website: <https://app.acryptos.com/>

Community resources: <https://docs.acryptos.com/community>

Project Documentation: <https://docs.acryptos.com/>

Telegram Group: <https://t.me/acryptos9>