

Arable FAQ [Draft V2]

Abstract

Arable is a decentralised farmable synthetic asset issuance protocol. **Arable synths are collateralized by ACRE (Arable native token)**. This pooled collateral model enables users to perform exchange and farm synths with the smart contract. This mechanism solves the time and fee issues experienced in current farming experience.

Synthetic already has proven that synths are secure enough to exist for trading by letting collateral providers to be the counterparty of the trades. Therefore minting traditional synths is not a problem. The challenging problem is to come up with an economic model of where the rewards from farming should be generated. As a solution, **Arable is letting collateral providers be the counterparty of yield farmers**.

The core logic is to create synths on a network that exists on the alt-chain. Synth minters are responsible for fully backing both the amount of minted assets and the rewards to be given to yield farmers. E.g. If *arSOL* (Arable's synth for Solana) is minted on Avalanche network, minters should be responsible for *arSOL* staking rewards. Rewards are automatically given to farmers, and the minters' debts are automatically increased evenly. This solution needs to cooperate with an oracle service for specific asset's price and farming rewards information.

FAQs

- What initial products will exist on the protocol

- ACRE airdrop application [Will be ready before token launch]
- ACRE staking and liquidity mining application [Will be ready before token launch]
- Synths minter application for stakers
- Zero slippage DEX platform that supports arable synths based on oracle price
- UX optimized farming application to provide simple and intuitive environment for farmers
- Governance system
- Universal cross-chain bridge - zero slippage swap between same synths $arSOL_{Avalanche}$ / $arSOL_{Polygon}$ / $arSOL_{Cosmos}$, and also with native token $arSOL$ / SOL

- Where minters get ACRE tokens?

Minters get ACRE tokens from airdrop if they previously held AVAX or PNG, Buy ACRE on DEX or get ACRE rewards from staking and liquidity mining.

- **Are minters actually profitable?**

Yes. By all means. Let's look at the math.

$$\text{Minter profit} = P_{\text{minter}}$$

$$\text{ACRE staking rewards for minter} = SR_{\text{minter}}$$

$$\text{Farming reward for minted synths} = FR_{\text{synths}}$$

$$\text{Synths Farming and Trading fees paid by farmers} = Fee_{\text{synths}}$$

$$\text{Synths Minted amount} = Synths_{\text{minted}}$$

$$\text{Bridging fee for minted} = BridgeFee_{\text{minted-synths}}$$

$$\text{Bridging fee for reward synths} = BridgeFee_{\text{reward-synths}}$$

$$P_{\text{minter}} = SR_{\text{minter}} - FR_{\text{synths}}$$

If they do mirrored farming on native chain, their profit will be

$$P_{\text{minter}} = SR_{\text{minter}} + Fee_{\text{synths}} - BridgeFee_{\text{minted-synths}} - BridgeFee_{\text{reward-synths}}$$

Here, the **bridging fee** is related to the amount of tokens moving from the native chain to the synths chain or the synths chain to the native chain.

If a person is already farming on a native chain for the amount they minted on synthetic chain,

$$\text{the reward is calculated as follows } P_{\text{minter}} = SR_{\text{minter}} + Fee_{\text{synths}} - BridgeFee_{\text{reward-synths}}$$

In the future we are looking to build a zero fee bridge by incentivizing bridge nodes with ACRE tokens. At that time the profit will be calculated as follows

$$P_{\text{minter}} = SR_{\text{minter}} + Fee_{\text{synths}}$$

This way minters won't get any risks, other than the issue of liquidation for sudden price changes for ACRE and synths' price volatility.

To protect minters from liquidation risks, the protocol could delay liquidation events until it reaches, super-min-collateralization-ratio for well known minters who join our Arable mutualized insurance pool.

- **What security problems exist for minters?**

As in Synthetix, synth minters will face price volatility risk, between the synthetic assets and the native token ACRE.

To reduce this risk, we will introduce stable coin collaterals - or other collaterals maintained by governance - to help minters.

- **What problems exist for farmers?**

The main risk for farmers is that the minters' collateral become less than the total value of minted synths for price and farming rewards. The protocol will then dynamically rebalance the fees to farmers (decrease) and minters (increase) in order to incentivise minting vs farming.

The rebalancing will be adjusted using a bonding curve similar to that of interest rates on lending protocols.

- **How does it work for native token hacks?**

To secure farmers and minters, we will introduce a mutualized insurance farming pool to allow farmers and minters to fully or partially insure against hacks.

- **What happens if Arable protocol is hacked**

Similar to the above, to secure farmers and minters, we will introduce a mutualized insurance farming pool to allow farmers and minters to fully or partially insure against hacks.

- **Where's the liquidity for synths assets swap?**

The collateral put on the staking contract will be taking the role of liquidity as stakers are counterparties of the swap. (Similar to Synthetix)

- **What is the detailed liquidation flow?**

Liquidators find the position and initiate liquidate transactions.

Liquidation is done per address. Liquidation is not done fully, the liquidation amount will be done until the collateral ratio (c-ratio) meets the target ratio.

The detailed flow for the liquidation event for Synthetix can be found [here](#).

- **What should be the penalty duration for liquidation?**

It will vary with asset and native staking pools. Minimum penalty duration could be 3 days to give time to stakers.

- **What ratio should be maintained between protocol farming TVL and ACRE liquidity to make the protocol secure?**

It is being worked on with finance experts. By design, TVL is not able to overflow.

ACRE_staked_amount / liquidation_threshold_collateralization_ratio.

- **How are the actual bridge fees paid for?**

Minters will manually pay for bridge fees from the staking/farming fees and rewards they receive in ACRE.

- **What are the collaterals used for minting Arable synths?**

Initially, only ACRE token is used as collateral to mint synths. Later, other tokens such as stable coins or synths themselves could be used as collateral after extended modelling.

- **What is Debt on Arable protocol?**

The debt is how much synths minters should provide to get back their full collateral locked in the protocol. It is determined by their debt percentage at the time of mint and the system debt being changed by farmers and traders.

- **What type of users are on the protocol, what are their roles and their rewards?**

Minters (Stakers): Get ACRE, stake it, mint synths, sell synths on Arable DEX and do mirror actions on native-chains to get ACRE staking reward and service fee from synths farmers and traders.

Farmers: Buy synths from Arable DEX and yield farm them in order to receive the same yield they would get from native chains - farmers need to pay a specific fee to minters for minting synths.

Liquidators: Monitor the liquidatable positions of minters that collateralization ratio does not meet and liquidate. Liquidators get rewards per liquidation event.

ACRE LPs: Provide liquidity to ACRE token on DEX and lock it on the liquidity mining contract to get liquidity mining rewards.

- **What type of actions exist on the protocol?**

ACRE staking - staked ACRE is used as collateral for minting synths. We are still testing whether to split the staking pools per synths or combine them all into one. The main issue with combining it all is that the debt would be harder to manage. Another point we are still testing is whether users should be rewarded more for major synth with high APY.

Additionally, If a minter is doing mirrored farming on the nativenetwork, it would be registered off-chain, to allow other users to cross check whether somepools are missing.

ACRE unstaking - unlock duration could be from minutes to weeks based on debt repayment.

ACRE rewards for stakers - only minters with a good collateralization ratio will receive this reward.

ACRE LP staking: LP staking will be dynamic based on the level of trading fees and liquidity. Initially, LP staking will be high and diminish as trading fees and liquidity increase. The difference will go to stakers (synths minters).

Minting synths: Is it risky to give collateral for high reward synths? No. The minters get more rewards from the farming fees as long as they provide more profitable farm tokens as synths.

Burning synths: Synths can be burnt either by minters who minted the tokens or by liquidation events.

Synths staking: Farmers can farm any synths on the pools provided by the protocol.

Synths unstaking: Unlock duration should be set based on native chain unlock duration + bridging time + a margin.

Synths swap: input token is burnt and output token is minted as in Synthetix.

Synths farming rewards: The debt of minters who minted the synths should be increased proportionally based on minted amount.

ACRE rewards for farmers: This is just for bootstrapping farmers and the rewards will only persist until the protocol reaches enough farmers.

- **What is the detailed flow for minters (stakers)?**

- To mint synths on Arable, minters need to purchase our native token – ACRE (synths farm token).
- The protocol is agnostic towards whether minters do the actual farming on the native network or not. However it is common sense for minters to run actions on native chains so as not to lose on giving farming rewards to farmers.
- The profit minters get while running the service on our platform is
 - A. They get ACRE as reward based on the amounts of synths they have minted
 - B. They get the synths itself that is spent by users as trading fee and farming fee
- Minters are in charge of moving assets either to/from centralized exchange, decentralized exchange and/or cross-chain bridges.

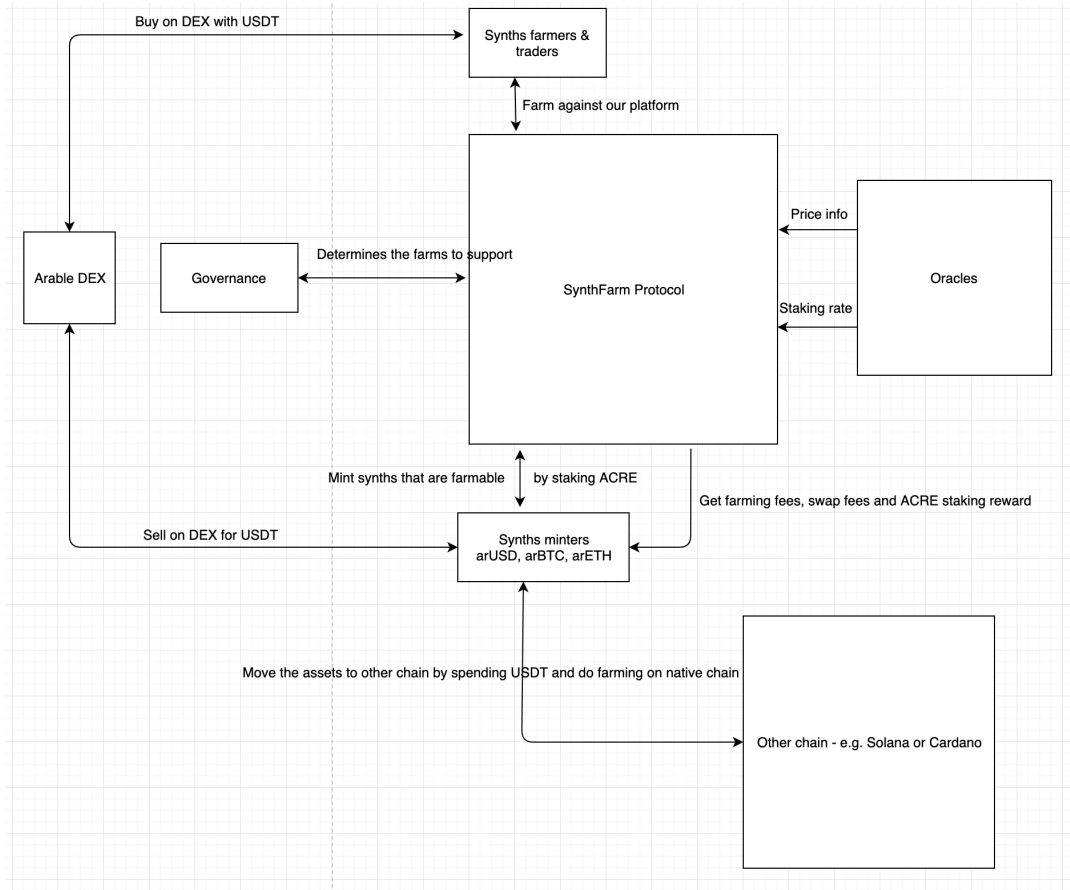
- **What's in it for farmers**

- Farmers provide 0.9% of their farming and trading fees to minters as minters are at the “little hands” of the ecosystem and without them there can be no farming. It’s similar to the commission rate on delegated proof of staking systems.
- Farmers provide 0.1% of their farming and trading fees to the protocol developers to incentivize developers to keep updating and upgrading the protocol.
- Arable incentivizes farmers to do farming on the protocol with ACRE tokens.
- Yield farmers can farm other ecosystem’s assets with nearly the same APY without using cross-chain bridges – e.g. they are not needed to cross Polkadot, Cardano, Cosmos, Solana and therefore decrease operational risk while increasing productivity..
- Traders can freely, easily and quickly trade a variety of multi chain assets while bypassing high trading and bridging fees

- **What’s in it for Blockchains**

- Other ecosystem assets like SOL or ATOM can be used widely in Avalanche based DeFi applications – This will increase flows, transactions and assets on the Avalanche blockchain. As we integrate with more and more blockchains in the future, Arable synthetics provide an elegant way to achieve full interoperability across chains.

- **Arable workflow**



- **Arable app wireframes**

Arable farms

Token	Rewards	APR	Native Network	Liquidity (Synths / Native network)	Historical rewards		
arOSMO	arOSMO	245%	Osmosis	\$10M / \$100M		Buy	Sell
arSOL-arRAY	arRAY	15%	Solana	\$10M / \$1000M		Buy	Sell
arAKT-arOSMO	arOSMO	15%	Osmosis	\$1M / \$10M		Buy	Sell

Stake ACRE

Token	APR	Liquidity	Historical price			
ACRE	30%	\$10M		Buy	Stake	Unstake

Arable synths

Token	Service APR	Fee charge	Native Network	Liquidity (Synths / Native network)	Historical rewards		
arAKT	arAKT	0.9%	Akash	\$1M / \$10M		Mint	Burn
arOSMO	arOSMO	0.5%	Osmosis	\$1M / \$10M		Mint	Burn

My Farms

Claim all farm rewards

arSOL-arRAY

APR 150% | Farm size \$10M

arQUICK

APR 150% | Farm size \$10M

arAKT-arOSMO

APR 150% | Farm size \$10M

arSOL

APR 150% | Farm size \$10M

Build farm

Unbonding time

1 day

7 days

14 days

From

Balance: 1000

50000

Max

S

arUSD

✓

To

Size: 20000

500

SR

arSOL-arRAY

✓

Build

Sell farm

Unbonding time

1 day

7 days

14 days

From

Size: 20000

500

Max

SR

arSOL-arRAY

✓

To

Balance: 1000

500

S

arUSD

✓

Build

Swap synths

From

500

Max (S) arSOL ✓

Balance: 1000

To

50000

(U) arUSD ✓

Balance: 1000

Price 100 arUSD per arSOL

Swap

Constant 1% fee with zero slippage

Mint synths

Staked Value	C-ratio	Active Debt
\$10000	1000%	\$1000

Amount

1000

(U) arUSD ✓

Balance: 1000

Mint

Burn synths

Staked Value	C-ratio	Active Debt
\$10000	1000%	\$1000

Amount

1000

(U) arUSD ✓

Balance: 1000

Burn

- Social links

<https://github.com/ArableProtocol/arableintro/blob/main/Arable%20Protocol%20%5BDraft%5D.pdf> - Arable paper

<https://github.com/ArableProtocol/arableintro/blob/main/Arable%20FAQ%20%5BDraft%5D.pdf> - Arable FAQ

<https://arablefi.com> - Website

<https://medium.com/@ArableProtocol> - Medium

<https://github.com/ArableProtocol> - Github - source code is closed until launch

<https://discord.gg/CwW8fVwVxe> - Discord

<https://t.me/ArableProtocol> - Telegram

<https://twitter.com/ArableProtocol> - Twitter

<https://www.linkedin.com/company/arable-protocol> - LinkedIn

contact@arablefi.com - Contact email

<https://docs.arablefi.com/> - Protocol docs