WHAT IS ARABLE?

**A SYNTHETIC
FARMING PROTOCOL**

WHERE…

**FARMERS CAN DO
SYNTHETIC FARMING
AND TRADING**

**MINTERS CAN ISSUE
SYNTHETIC ASSETS**

ARABLE – Litepaper
Revised: September 22, 2021

INTRODUCING ARABLE: A FARMABLE SYNTHS PROTOCOL

Arable is the first **synthetic farming protocol** that is dedicated to helping yield farmers access the assets and yields of multiple blockchains (such as Ethereum, Avalanche, Solana, or Polygon) from a single chain.

Since summer 2020, **yield farming** has been a tremendous engine for the growth of decentralized finance protocols. In essence, token holders who have excess liquidity can provide their assets and stake them or place them in liquidity pools. This helps ecosystems foster deeper liquidity, which is a prerequisite for the smooth operation of lending platforms or for traders to trade on decentralized exchanges. In exchange, liquidity providers receive native tokens as rewards for their participation in the ecosystem.

Many different blockchains are now supporting liquidity mining pools and providing incentive mechanisms, but **the transfer of the assets between different chains takes time, costs fees** and requires **protocol, chain and bridge specific knowledge**. Additionally, moving assets and investing across various protocols is not intuitive and the operational burden and risk are heavy. This is leading users to not only feel confused about which chain they should pledge allegiance to for yield farming but also all together miss on farming opportunities.

Synthetic assets (or synths) are essentially tokenized derivatives that tie the value of an asset (the synth) to an already existing asset without having to own the underlying asset. They are similar to derivatives in traditional finance but take the process one step further by creating a record on the blockchain which adds security and traceability. Additionally, they solve the problem of interoperability and its complications in terms of trading across multiple chains. For example, since the asset issuance format is different between Ethereum and Solana, assets cannot be cross-leveraged. Synthetic assets solve this problem by **replicating the assets** on the target blockchain in the desired format.

ARABLE's goal is to provide an environment where yield farmers can **access simply and intuitively all the crypto farms on a single chain**, where the users receive the **same rewards as they would on native-chains**. The environment is supported by incentivized collateral providers (also known as minters).

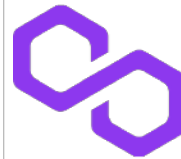As yield farmers ourselves, we are acutely aware of the issues faced by the community because of the differences between chains: security risks, operational risks, technological differences between chains, liquidity fragmentation, fees... We are

convinced that **synthetic farming** would provide a breakthrough in the field of yield farming and enable new ways to **create, collateralize and use any asset in productive ways**.

WHY DO WE THINK ARABLE IS CRUCIAL IN TODAY'S DEFI ECOSYSTEM?

1. Market fragmentation

For DeFi (decentralized finance) users, it is increasingly difficult to make sense of the **multi-chain universe** that is unfolding. For example, yield farmers can choose from the following chains today, among many others:

Ethereum	Cosmos	Avalanche	Polygon	Solana

Although the abundance of choice is a **positive** for yield farmers, it also **creates the following issues**:
- **Technical complications** unique to each platform
- **Learning curve** in order to leverage the technologies available
- Increased **risk of technical failure** due to the multiple tools used

Giving access to all the cross-chain assets and farms on a single chain can allow to **streamline and simplify the workflows of DeFi users**.

2. Strategy optimization

As popular projects such as yearn.finance have demonstrated, **consolidating** yield farming activities on a single platform creates many benefits, such as cost savings (gas), economies of scale, and also can allow the capture of a larger portion of rewards. ARABLE allows yield farmers to utilize synthetic assets and farms to let them gain efficiency by using a single chain.

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3. ARABLE's unique value proposition

There is today a number of platforms that allow yield farmers to aggregate yield chain by chain. However, there is no platform that allows such aggregation for **all cross-chain assets and farms**.

The key components of the ARABLE platform will be:
- An intuitive **dashboard** where yield farmers have an overview of their yield generating stakes, liquidity pools, or synths
- **Synthetic assets**, such as arETH, arCRV, which mirror existing assets and are unique to ARABLE
- **Synthetic farms**, through synthetic farming, users can access all crypto farms on a single chain

Synthetix has proven that **synths** are secure enough to exist and be used for trading. Therefore the minting of synthetic assets is not a foreign concept to most yield farmers.

However, the challenge is to build a system that would guarantee farming rewards for the assets minted. In other words, an incentive system that allows the creation of sustainable **synthetic farms**.

The core logic is to create **synthetic assets** on a network that exists on an alternative chain:

- **Synths minters** are responsible for the collateralization of the minted assets and for the rewards to be given to yield farmers.

- For example, if the asset arSOL (a synth for SOL on ARABLE) is minted on the Avalanche network, minters should be responsible for backing the arSOL staking rewards, which are automatically given to farmers, as the minters' debt is automatically increased proportionally based on minted synth. The protocol makes use of an oracle service for the asset prices and yield calculation.

TECHNICAL IMPLEMENTATION

1. What are synthetic assets?

First, it may be useful to clarify what are **synthetic assets**.

Synthetic assets are assets that replicate other assets in a specific environment. In our case, **"synths"** (short for synthetic assets) are assets that may represent real world assets or assets that were originally created on another blockchain. For example, ETH is the native token of the Ethereum network, and it will be minted as **arETH** on the ARABLE protocol.

Synthetic and derivatives assets are a **multi-trillion market in traditional finance**, which has barely been tapped in the blockchain space.

We believe facilitating the minting of such assets would unlock **a new era of yield farming** and be a material contribution to the growth of the blockchain ecosystem.
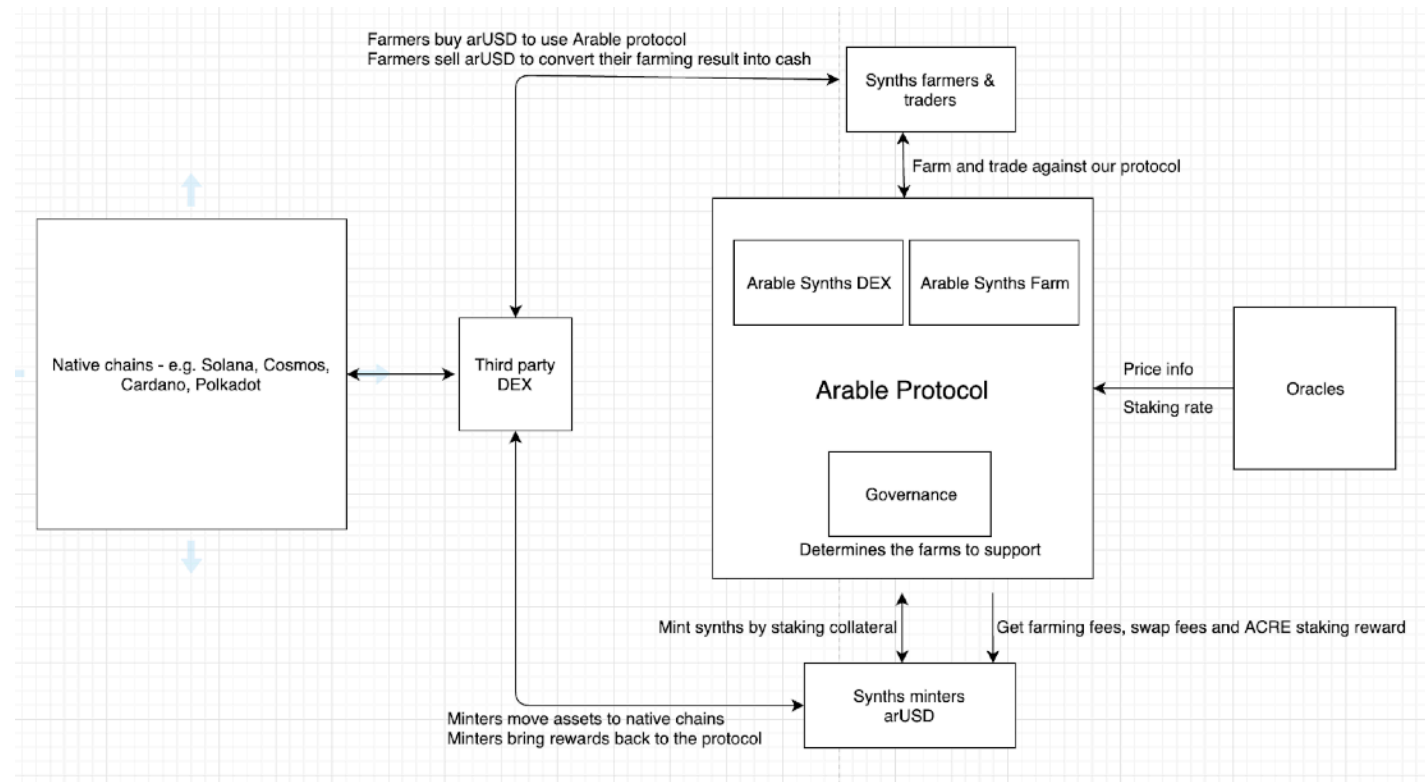
Comparison with other solutions

Technical Solution	Examples	Comments	Arable
Bridges	Avalanche, Polygon…	Allowing the transfer of assets from one chain to the other is useful, and allowing them to be farmed in the next logical step	Arable allows the farming of all cross-chain assets, which creates new possibilities for their usage
Wallets	C98…	Multi-chain wallets are useful but offer limited capabilities for farmers	Arable not only allows to consolidate assets, but also provides many additional features
Synthetic assets	SNX	Existing platforms allow the trading of synths, but not their farming	Allowing the use of synths for yield farming unlocks new possibilities for liquidity providers

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2. Synthetic asset minting process

The minting process relies on the following components of the platform:

- **Synths minting application** including secure oracle integration

- A **zero slippage DEX platform** that supports arable synths

- A **generalized and intuitive farming interface**

- A unique **governance system** that uses an advanced bipartite mechanism. Votes are weighted not only by the number of tokens but also by the reputation of the actors. This allows for the creation of a more equalitarian system.

Farmers buy arUSD to use Arable protocol
Farmers sell arUSD to convert their farming result into cash

Synths farmers & traders

Farm and trade against our protocol

Native chains - e.g. Solana, Cosmos, Cardano, Polkadot

Third party DEX

Arable Synths DEX | Arable Synths Farm

Arable Protocol

Price info
Staking rate

Oracles

Governance

Determines the farms to support

Mint synths by staking collateral

Get farming fees, swap fees and ACRE staking reward

Minters move assets to native chains
Minters bring rewards back to the protocol

Synths minters arUSD

KEY TERMS

ACRE: Protocol native token. It is also the traditional unit of account for crop lands

ARABLE: Name of the protocol. Traditionally, arable is said about land that can be farmed

arBTC: Synthetic BTC, as bridged onto the Arable protocol and platform

arETH: Synthetic ETH, as bridged onto the Arable protocol and platform

Farm: Is the action of providing assets or liquidity to a system, and receiving native tokens as incentive

Mint: The minting is the issuance process of new synthetic assets on ARABLE

Synths: Short for synthetic assets, an assets that is a derivative or a replica of another existing asset

LINKS

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Twitter: @ArableProtocol

Telegram: @ArableProtocol

Discord: https://discord.gg/arable