

# Farmhub - Audit Report

### SUMMARY



Farmhub aims to innovate in the DeFi space, starting with the platform's creation of three connected yield-farms - Toad, Mouse, and Eagle. Users must stake in the Toad and Mouse farms and stake their resulting yield in

the Eagle staking contract. Eagle is designed to be the most valuable token in the ecosystem.

For this audit, we analyzed the project's token contracts, MasterChef staking contracts, their Vault and VaultMaker, and their timelock. We reviewed the team's code at the mainnet addresses below:

#### Mouse Farm:

- Token 0x71F2f0ce6e858de06e94aad9eF0cD4FFFa298034
- Timplack NVQQ2c611c110Q5C76E562E527D7C2Q1D2c5hf2fcd

## Toad Farm:

- Token 0x22D67B3f6aCdf8c0682f6FB20590E902DeEA6BA1
- Timelock 0x51710d79741b875800655ae352a3f659afdfe445
- Master Chef 0xd390D438897852d378e9B807DAf41BE71C52F7fF

## Eagle Farm:

- Token 0x6739eF052CAFFFb0cdE882B80167efD448B414eC
- VaultMaker 0xf4f092d2FC1e28CE7954D3A38a739d05a33886e1
- Master Chef 0x162F86ee7e76f676f83b483ed414392B51D9807D

### Notes on the Contracts:

- The tokens are each designed to be a governance token where 1 token = 1 vote.
- Token holders can delegate their voting rights to any address. To save gas, users can also do so using an EIP-712 signature.
- The tokens can only be minted by the owner, which has been properly set as the MasterChef contract.
- Users can stake a variety of assets into the MasterChef staking contracts in the Mouse and Toad farms into order to earn further that farm's tokens as rewards.
- The MasterChef staking contract for the Eagle farm is intended to only permit deposits in TOAD, MOUSE, and BUSD. After staking in the Eagle farm, a user cannot stake again for 25,200 blocks.

Eagle staking contract specifically, a 5% fee is incurred which is sent to the current vault as specified by the VaultMaker contract. The team can update this fee to any amount any any time.

- Upon unstaking from the Eagle farm, users will incur a 20% burn fee on their deposited tokens. The team can sets these fees to any value at any time.
- The Eagle staking contract is unique in that it enables a user to claim their rewards without removing their deposit if 25,200 blocks have yet to pass; allowing their deposit to continue to earn rewards.
- The project team can add different types of tokens for staking, and can update the reward rates for each token at any time.
- The MasterChef contract will be controlled by an address through the Timelock contract, which delays all transactions by 6 hours.
- Users can also deposit their Eagle tokens into a Vault.
- BUSD from staking fees will be deposited here and distributed amongst stakers.
- After a period of time set by the team a new vault can be created for a new round of BUSD rewards.
- Users must promptly claim their BUSD rewards when available. When stakers claim their BUSD rewards, their Eagle tokens will be burned.
- 90 days after the deployment of a Vault, the development

- There are some gas optimizations that could be implemented, but as this code is already in production-use, those are omitted here.
- Usage of ReentrancyGuard in applicable functions to prevent re-entrancy attacks.
- Utilization of SafeMath (or similarily safe functions) across all contracts to prevent overflows.

## **Audit Findings Summary:**

- No security issues from outside attackers were identified.
- Ensure trust in the team as they have notable control over the ecosystem.
- Date: March 29th, 2021

# COMBINED EXTERNAL THREAT RESULTS

Vulnerability Category	Notes	Result
Arbitrary Storage Write	N/A	PASS
Arbitrary Jump	N/A	PASS

Vulnerability Category	Notes	Result
Dependence on Predictable Variables	N/A	PASS
Deprecated Opcodes	N/A	PASS
Ether Thief	N/A	PASS
Exceptions	N/A	PASS
External Calls	N/A	PASS
Integer Over/Underflow	N/A	PASS
Multiple Sends	N/A	PASS
Suicide	N/A	PASS
State Change External Calls	N/A	PASS
Unchecked Retval	N/A	PASS
User Supplied Assertion	N/A	PASS
Critical Solidity Compiler	N/A	PASS
Overall Contract Safetv		PASS

**DETAILS: TOKEN CONTRACTS** 

DETAILS: MASTERCHEF

DETAILS: MASTERCHEF (EAGLE VARIANT)

DETAILS: VAULT/VAULTMAKER

**DETAILS: TIMELOCK** 

#### PRINT EXPANDED SECTIONS

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