



# **Smart Contract Security Audit**

<u>TechRate</u> September, 2021

## **Audit Details**



**Audited project** 

**VERO FARM** 



Deployer address

0x813424d1d9c907361f1f4988f349731dc4fbcff8



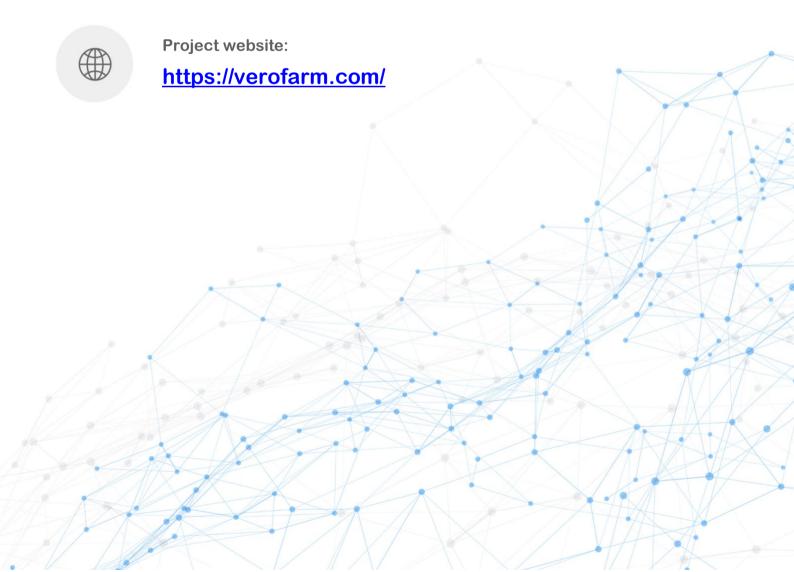
**Client contacts:** 

**VERO FARM team** 



Blockchain

**Binance Smart Chain** 



## **Disclaimer**

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the below disclaimer below – please make sure to read it in full.

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The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed.

## **Background**

TechRate was commissioned by VERO FARM to perform an audit of smart contracts:

https://bscscan.com/address/0x0ef008ff963572d3dabc12e222420f537ddabf94#code

The purpose of the audit was to achieve the following:

- Ensure that the smart contract functions as intended.
- Identify potential security issues with the smart contract.

The information in this report should be used to understand the risk exposure of the smart contract, and as a guide to improve the security posture of the smart contract by remediating the issues that were identified.

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## **Contracts Details**

#### Token contract details for 16.09.2021

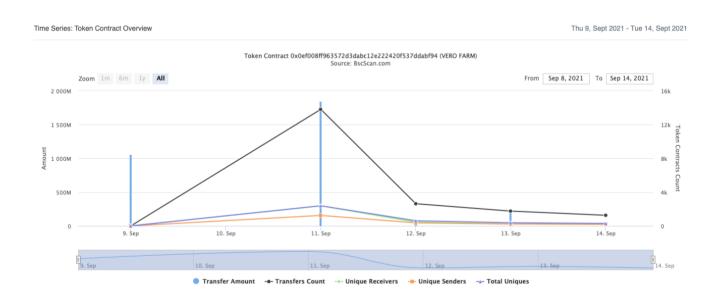
Contract name	VERO FARM
Contract address	0x0EF008FF963572d3DAbc12E222420F537ddaBf94
Total supply	1,000,000,000
Token ticker	VERO
Decimals	6
Token holders	1,442
Transactions count	20,731
Top 100 holders dominance	96.70%
_feeTransfer	1
Uniswap v2 pair	0x1a98edc6d264d5331f5fb22eb7002d7cbff71536
Contract deployer address	0x813424d1d9c907361f1f4988f349731dc4fbcff8
Contract's current owner address	0xdf172425883026cf2ec39b25db442597933b7bf7

## **VERO FARM Token Distribution**



(A total of 967,011,571.07 tokens held by the top 100 accounts from the total supply of 1,000,000,000.00 token)

# VERO FARM Contract Interaction Details



# VERO FARM Top 10 Token Holders

1	
3 PancakeSwap V2: VERO 22 15,218,637.883101 1.5219%	
4 0x0bb784dd017f6c7c335d69789f103509216fc634 9,990,000 0.9990%	
5 (a) 0x35bc23477ec7dcbe44d6680588837fc90c1bef63 (b) 0x35bc23477ec7dcbe44d6680588837fc90c1bef63 (c) 0x35bc2347690c1bef63 (c) 0x35bc2347690c1beff63 (c) 0x35bc2	
6 0xeb613116e645aec8be1236bab92133323a87f44b 2,132,894.34612 0.2133%	
7 0x1bd4fc3cd7f5d5d2f7ae580828a0a9b41b59fdef 1,784,222.464071 0.1784%	
8 0xce186c041eb6dc988c7e8a7964c36f3e08ef3d96 1,757,781 0.1758%	
9 0x7lbf849d48424527f1072b10c58bc94b26d57425 1,527,416.427033 0.1527%	
10 0xb719bd583/5111ee9f00918fff9b23ec4dc21e65 1,098,880 0.1099%	

### **Contract functions details**

- + Context - [Int] \_msgSender - [Int] msgData + ERC20 (Context, IERC20, Ownable) - [Int] initialize # - [Pub] name - [Pub] symbol - [Pub] decimals - [Pub] totalSupply - [Pub] balanceOf - [Pub] transfer # - [Pub] allowance - [Pub] approve # - [Pub] transferFrom # - [Pub] increaseAllowance # - [Pub] decreaseAllowance # - [Int] \_transfer # - [Int] \_mint # - [Int] \_burn # - [Int] \_approve # - [Int] \_setupDecimals # - [Int] beforeTokenTransfer # - [Pub] mint # - modifiers: onlyOwner - [Pub] enableMint# - modifiers: onlyOwner - [Pub] modifyWhiteList# - modifiers: onlyOwner - [Ext] setAntiBot# - modifiers: onlyOwner - [Pub] changeFeeWallet# - modifiers: onlyOwner - [Pub] changeFee # - modifiers: onlvOwner - [Pub] isExcludedFromFee - [Pub] excludedFromFee # - modifiers: onlyOwner - [Pub] transferToken # - modifiers: onlyOwner + [Int] IERC20 - [Ext] totalSupply - [Ext] balanceOf - [Ext] transfer # - [Ext] allowance - [Ext] approve # - [Ext] transferFrom #
- + Ownable (Context)
  - [Int] <Constructor> #

- [Pub] owner
- [Pub] renounceOwnership #
  - modifiers: onlyOwner
- [Pub] transferOwnership #
  - modifiers: onlyOwner

#### + [Lib] SafeMath

- [Int] tryAdd
- [Int] trySub
- [Int] tryMul
- [Int] tryDiv
- [Int] tryMod
- [Int] add
- [Int] sub
- [Int] mul
- [Int] div
- [Int] mod
- [Int] sub
- [Int] div
- [Int] mod

#### + [Int] IUniswapV2Factory

- [Ext] feeTo
- [Ext] feeToSetter
- [Ext] getPair
- [Ext] allPairs
- [Ext] allPairsLength
- [Ext] createPair #
- [Ext] setFeeTo#
- [Ext] setFeeToSetter#

#### + [Int] IUniswapV2Pair

- [Ext] name
- [Ext] symbol
- [Ext] decimals
- [Ext] totalSupply
- [Ext] balanceOf
- [Ext] allowance
- [Ext] approve #
- [Ext] transfer #
- [Ext] transferFrom #
- [Ext] DOMAIN\_SEPARATOR
- [Ext] PERMIT\_TYPEHASH
- [Ext] nonces
- [Ext] permit #
- [Ext] MINIMUM\_LIQUIDITY
- [Ext] factory
- [Ext] token0
- [Ext] token1
- [Ext] getReserves
- [Ext] price0CumulativeLast
- [Ext] price1CumulativeLast
- [Ext] kLast
- [Ext] burn #
- [Ext] swap #

```
- [Ext] skim #
 - [Ext] svnc #
 - [Ext] initialize #
+ [Int] IUniswapV2Router01
 - [Ext] factory
 - [Ext] WETH
 - [Ext] addLiquidity #
 - [Ext] addLiquidityETH ($)
 - [Ext] removeLiquidity #
 - [Ext] removeLiquidityETH #
 - [Ext] removeLiquiditvWithPermit #
 - [Ext] removeLiquidityETHWithPermit #
 - [Ext] swapExactTokensForTokens #
 - [Ext] swapTokensForExactTokens #
 - [Ext] swapExactETHForTokens ($)
 - [Ext] swapTokensForExactETH #
 - [Ext] swapExactTokensForETH #
 - [Ext] swapETHForExactTokens ($)
 - [Ext] quote
 - [Ext] getAmountOut
 - [Ext] getAmountIn
 - [Ext] getAmountsOut
 - [Ext] getAmountsIn
+ [Int] IUniswapV2Router02 (IUniswapV2Router01)
 - [Ext] removeLiquiditvETHSupportingFeeOnTransferTokens #
 - [Ext] removeLiquidityETHWithPermitSupportingFeeOnTransferTokens #
 - [Ext] swapExactTokensForTokensSupportingFeeOnTransferTokens #
 - [Ext] swapExactETHForTokensSupportingFeeOnTransferTokens ($)
 - [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens #
+ Vero (ERC20)
 - [Pub] <Constructor> #
 - [Pub] burn #
 - [Int] transfer #
 - [Ext] <Fallback> ($)
```

(\$) = payable function # = non-constant function

# **Issues Checking Status**

Issue description	Checking status
1. Compiler errors.	Passed
2. Race conditions and Reentrancy. Cross-function race conditions.	Passed
3. Possible delays in data delivery.	Passed
4. Oracle calls.	Passed
5. Front running.	Passed
6. Timestamp dependence.	Passed
7. Integer Overflow and Underflow.	Passed
8. DoS with Revert.	Passed
9. DoS with block gas limit.	Passed
10. Methods execution permissions.	Passed
11. Economy model of the contract.	Passed
12. The impact of the exchange rate on the logic.	Passed
13. Private user data leaks.	Passed
14. Malicious Event log.	Passed
15. Scoping and Declarations.	Passed
16. Uninitialized storage pointers.	Passed
17. Arithmetic accuracy.	Passed
18. Design Logic.	Passed
19. Cross-function race conditions.	Passed
20. Safe Open Zeppelin contracts implementation and usage.	Passed
21. Fallback function security.	Passed

#### **Security Issues**

High Severity Issues

No high severity issues found.

Medium Severity Issues

No medium severity issues found.

Low Severity Issues

No low severity issues found.

# Owner privileges (In the period when the owner is not renounced)

Owner can mint any amount of tokens.

```
function mint(uint256 amount1) public onlyOwner returns (bool) {
   require(_mintable, "this token is not mintable");
   _mint(_msgSender(), amount1);
   return true;
}
```

Owner can enable and disable minting.

```
function enableMint(bool _pmintable 1) public onlyOwner returns (bool) {
    _mintable = _pmintable 1;
    return true;
}
```

Owner can change whitelist values.

```
function modifyWhiteList(
   address[] memory newWhiteList1,
   address[] memory removedWhiteList1
) public onlyOwner {
   for (uint256 index; index < newWhiteList1.length; index++) {
      whiteList[newWhiteList1[index]] = true;
   }
   for (uint256 index; index < removedWhiteList1.length; index++) {
      whiteList[removedWhiteList1[index]] = false;
   }
}</pre>
```

Owner can enable and disable antibot.

```
function setAntiBot(bool _enable 1) external onlyOwner {
    antiBotEnabled = _enable 1;
}
```

Owner can change fee wallet.

```
function changeFeeWallet(address feeWallet1) public onlyOwner {
    _feeWallet = feeWallet1;
}
```

Owner can change fee value.

```
function changeFee(uint256 feeTransfer1) public onlyOwner {
    _feeTransfer = feeTransfer1;
}
```

• Owner can exclude from fees.

```
function excludedFromFee(address account 1) public onlyOwner {
    _isExcludedFromFee[account 1] = true;
}
```

Owner can withdraw tokens and BNBs.

```
function transferToken(
   address coinAddress1,
   uint256 value1,
   address payable to1
) public onlyOwner {
   if (coinAddress1 == address(0)) {
      return to1.transfer(value1);
   }
   IERC20(coinAddress1).transfer(to1, value1);
}
```

#### Conclusion

Smart contracts do not contain high severity issues!

#### TechRate note:

Please check the disclaimer above and note, the audit makes no statements or warranties on business model, investment attractiveness or code sustainability. The report is provided for the only contract mentioned in the report and does not include any other potential contracts deployed by Owner.





