



TechRate

AUDIT COMPANY

Smart Contract Security Audit

TechRate

June, 2021

Audit Details



Audited project

ZeusFarms



Deployer address

0x79B14E74E92c430383b2D271123aBD45280f146f



Client contacts:

ZeusFarms team



Blockchain

Binance Smart Chain



Project website:

Not provided

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 ZeusFarms to perform an audit of smart contracts:

<https://bscscan.com/address/0xa3b43Ea19758bc79929dA12156866Ad26a5E136d#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.

Contracts Details

Token contract details for 21.06.2021

Contract name	ZeusFarms
Contract address	0xa3b43Ea19758bc79929dA12156866Ad26a5E136d
Total supply	500
Token ticker	ZEUS
Decimals	18
Token holders	203
Transactions count	4,055
Top 100 holders dominance	99.30%
Contract deployer address	0x79B14E74E92c430383b2D271123aBD45280f146f
Contract's current owner address	0x141ebbdeae79c3ce978baace17e57bd995588011

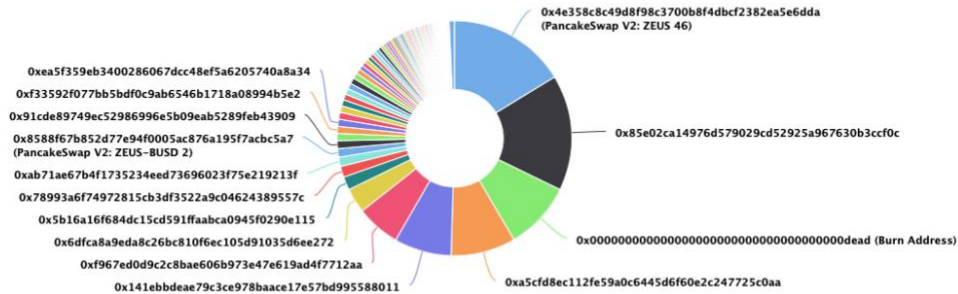
ZeusFarms Token Distribution

The top 100 holders collectively own 99.30% (496.49 Tokens) of ZeusFarms Token

Token Total Supply: 500.00 Token | Total Token Holders: 204

ZeusFarms Token Top 100 Token Holders

Source: BscScan.com



(A total of 496.49 tokens held by the top 100 accounts from the total supply of 500.00 token)

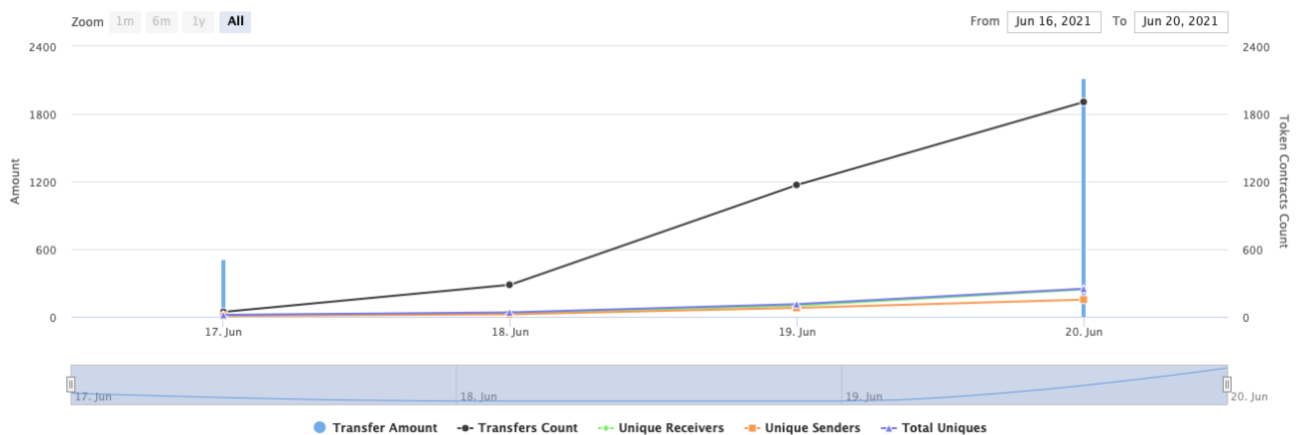
ZeusFarms Contract Interaction Details

Time Series: Token Contract Overview



Thu 17, Jun 2021 - Sun 20, Jun 2021

Token Contract 0xa3b43Ea19758bc79929dA12156866Ad26a5E136d (ZeusFarms Token)

Source: BscScan.com



ZeusFarms Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	 PancakeSwap V2: ZEUS 46	81.410944386212221819	16.2822%
2	0x85e02ca14976d579029cd52925a967630b3ccf0c	79.62402446898114417	15.9248%
3	Burn Address	46.761630658416816996	9.3523%
4	0xa5cfd8ec112fe59a0c6445d6f60e2c247725c0aa	44.488195180671188064	8.8976%
5	 0x141ebbdcae79c3ce978baace17e57bd995588011	39.539034598353134003	7.9078%
6	0xf967ed0d9c2c8bae606b973e47e619ad4f7712aa	30.184	6.0368%
7	0x6dfca8a9eda8c26bc810f6ec105d91035d6ee272	17.04435166671992753	3.4089%
8	0x5b16a16f684dc15cd591ffaabca0945f0290e115	9.173615228678177357	1.8347%
9	0x78993a6f74972815cb3df3522a9c04624389557c	7.464166966229436931	1.4928%
10	0xab71ae67b4f1735234eed73696023f75e219213f	6.4	1.2800%



Contract functions details

+ Context

- [Int] _msgSender
- [Int] _msgData

+ [Lib] Address

- [Int] isContract
- [Int] sendValue #
- [Int] functionCall #
- [Int] functionCall #
- [Int] functionCallWithValue #
- [Int] functionCallWithValue #
- [Int] functionStaticCall
- [Int] functionStaticCall
- [Int] functionDelegateCall #
- [Int] functionDelegateCall #
- [Prv] _verifyCallResult

+ [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

+ Ownable (Context)

- [Int] <Constructor> #
- [Pub] owner
- [Pub] renounceOwnership #
 - modifiers: onlyOwner
- [Pub] transferOwnership #
 - modifiers: onlyOwner

+ [Int] IBEP20

- [Ext] totalSupply
- [Ext] decimals
- [Ext] symbol
- [Ext] name
- [Ext] getOwner
- [Ext] balanceOf
- [Ext] transfer #
- [Ext] allowance
- [Ext] approve #
- [Ext] transferFrom #

+ **BEP20** (Context, IBEP20, Ownable)

- **[Pub]** <Constructor> #
- **[Ext]** getOwner
- **[Pub]** name
- **[Pub]** decimals
- **[Pub]** symbol
- **[Pub]** totalSupply
- **[Pub]** balanceOf
- **[Pub]** transfer #
- **[Pub]** allowance
- **[Pub]** approve #
- **[Pub]** transferFrom #
- **[Pub]** increaseAllowance #
- **[Pub]** decreaseAllowance #
- **[Pub]** mint #
 - modifiers: onlyOwner
- **[Int]** _transfer #
- **[Int]** _mint #
- **[Int]** _burn #
- **[Int]** _approve #
- **[Int]** _burnFrom #

+ **ZeusToken** (BEP20)

- **[Pub]** mint #
 - modifiers: onlyOwner
- **[Int]** _transfer #
- **[Ext]** delegates
- **[Ext]** delegate #
- **[Ext]** delegateBySig #
- **[Ext]** getCurrentVotes
- **[Ext]** getPriorVotes
- **[Int]** _delegate #
- **[Int]** _moveDelegates #
- **[Int]** _writeCheckpoint #
- **[Int]** safe32
- **[Int]** getChainId

(\$) = 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.	Low issue

19. Cross-function race conditions.	Passed
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20. Safe Open Zeppelin contracts implementation and usage.	Passed
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21. Fallback function security.	Passed
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Security Issues

✓ High Severity Issues

No high severity issues found.

✓ Medium Severity Issues

No medium severity issues found.

✓ Low Severity Issues

1. Wrong burning

Issue:

There is sending tokens to the dead address in overridden `_transfer` functions, instead of burning them in token contract.

Recommendation:

There should be a burn instead of sending to the dead address.

Owner privileges

- Owner can mint before transferring ownership to MasterChef.

Conclusion

Smart contracts contain owner privileges. Audited only the token of the project.

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.



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