GENERAL DESCRIPTORS

1. Species: *Triticum aestivum*

2. Name of Variety: LACRI WHIT-5

3. Old Variety Name or Code: NORMAN [RSM-NORMAN F2008]

4. Original/Sources of the Variety: CIMMYT, Mexico

5. Type of Variety: Pure Line

6. Pedigree: BABAX/LR42/BARAX (CGSS96BO2235-099B-019Y-22B-OY-58B-OM-03CJ-03T-OMX)

7. Name and address of developing Organization, Breeder: Y. Yakubu (LCRI), O. Abdalla (ICARDA, Sudan)

8. Morphological Characteristics: Semi dwarf, long spike, high tillering ability erect plant growth and short awns.

9. Adaption: Well, adapted to irrigated conditions of the North-west, North-central and North-east zones

10. Days to Maturity: 100 – 110 DAS

11. Potential Yield: 5.0 – 6.0 t/ha

12. Pest/Disease Tolerance: Tolerant to stemborer and aphids

13. Outstanding Characteristics: Medium maturity, heat tolerant, high yielding and good baking quality.

14. Nutrient Content:

Grain	**Milled Flour**	
Protein	17.2	15.9
Carbohydrate	64.8	68.6
Fat	1.4	1.3

15. Year of Release: 2014

SPECIFIC DESCRIPTORS

16. Habitat: Low land
17. Tillering Capacity: Medium (12 – 15)
18. Plant Height: 90 – 95cm
19. Stem base Colouration: Greenish
20. Leaf Sheat Colour: Greenish
21. Leaves: Long
22. Ligule: Medium
23. Flag Leaf: Semi erect and glossy
24. Photo period Sensitivity: Photo insensitive
25. Stigma Colour: Colour less
26. Panicle Exertion: Fully
27. Grain Type: Short and plumpy
28. Grain Colour: Red
29. Husk Colour at Maturity: Golden brown
30. Awns: Short awned
31. Amylose Content: 1040 Brabender units

GENERAL DESCRIPTORS

1. Species: *Triticum aestivum*

2. Name of variety: LACRI WHIT-11

3. Old variety name or code: IMAM (ATTILA 7)

4. Origin/sources of the variety: International Center for Agricultural Research in the Dry Areas (ICARDA)

5. Type of variety: Pure line

6. Pedigree: MEX94.27.1.20/3/SOKOLL//ATTILA/3*BCN

7a. Name and address of developing organization: International Center for Agricultural Research in the Dry Areas (ICARDA) and Lake Chad Research Institute, Maiduguri, Nigeria

b. Breeders: W. Tadessa (ICARDA), S. Asefa (ICARDA), H. Ketata (ICARDA), Y. Yakubu (LCRI)

d. Collaborating scientists: Z.G.S. Turaki (LCRI), O.G. Olabanji (LCRI), I.U. Abubakar (IAR), M. El-Mourid (ICARDA)

8. Morphological characteristics: Semi dwarf, erect, high tillering ability, medium spike length and short awns.

9. Adaptation: Well, adapted to irrigated conditions of the Sudano-Sahelian zones

10. Days to maturity: 90 – 95 days

11. Potential yield: 7.1 t/ha

12. Pest and disease reaction: Tolerant to stem-borer

13. Outstanding characteristics: Heat tolerant, high yielding and good baking quality (3035 cm^3/g).

14. Nutrient content (%):

Grain	Milled flour	
Protein	15.7	15.1
Carbohydrate	67.3	70.0
Fat	1.3	1.2

15. Year of Release: 2019

SPECIFIC DESCRIPTORS

16. Habitat: Lowland
17. Tillering capacity: Medium (9 – 11 tillers/plant)
18. Plant height: 89.4 - 90.1 cm
19. Stem base colouration: Green
20. Leaf sheath colour: Green
21. Leaf length: Long (21 - 22 cm)
22. Leaf ligule: Medium
23. Flag leaf: Semi erect and glossy
24. Photoperiod: Insensitive
25. Stigma colour: White
26. Panicle exsertion: Full
27. Grain type: Short and plumpy
28. Grain colour: White
29. Husk colour at maturity: Golden brown
30. Awns: Short
31. Amylose content: 22.9%

GENERAL DESCRIPTORS

1. Species: *Triticum aestivum*
2. Name of variety: LACRIWHIT 14
3. Old variety name or code: BORLAUG100
4. Origin/sources of the variety: International Maize and Wheat Improvement Center (CIMMYT), Apartado Postal Galerias, Col. Veronica Anzures 11305 Ciudad de Mexico, Mexico
5. Type of variety: Pure line
6. Pedigree: ROLF074xBOWxNKTxCBRDx3xCBRDx5xFRET2xTUKURUxFRET2 (BORLAUG 100)

7a. Name and address of developing organization: International Maize and Wheat Improvement Center (CIMMYT), Apartado Postal Galerias, Col. Veronica Anzures 11305 Ciudad de Mexico, Mexico

b. Name and address of releasing Institution: Lake Chad Research Institute, P.M.B. 1293, Maiduguri, Borno State Nigeria

c. Breeders: R. Singh, M.B. Filippo, K.K. Mala, M.A. Dawud, Y. Yakubu

d. Collaborating Organization: Flour Milling Association of Nigeria, No.2 Old Dock Road, Apapa, Lagos Nigeria

e. Collaborating Scientists: B.G.J. Kabir, Z.G.S. Turaki, O.G. Olabanji, S. Miko, A. Samaila, A.T. Abdullahi

8. Morphological characteristics: Semi dwarf, erect, high tillering, medium spike length and medium awns.
9. Adaptation: Sahel, Sudan and northern Guinea Savanna ecological zones (Irrigated conditions)
10. Days to maturity: 85 - 90 days
11. Potential yield: 8.2 t/ha
12. Pest and disease reaction: Resistant to stem-borer
13. Outstanding characteristics: Heat tolerance, high yielding and high flour yield (79.7%) and quality.
14. Nutrient content (%):

Milled flour

Protein	16.7%
Carbohydrate	70.7%
Fat	2.13%

15. Year of Release: 2023

SPECIFIC DESCRIPTORS

16. Habitat: Lowland
17. Tillering capacity: Medium (9-12 tillers/plant)
18. Plant height: Medium (86.2-90.3 cm)
19. Stem base colouration: Green
20. Leaf sheath colour: Green
21. Leaf length: Long (20.2-23.5 cm)
22. Leaf ligule: Medium
23. Flag leaf: Semi erect and glossy
24. Photoperiod: Insensitive
25. Stigma colour: White
26. Panicle exertion: Full
27. Grain type: Slightly elongated and plumpy
28. Grain colour: White
29. Husk colour at maturity: White
30. Awns: Medium
31. Gluten content: 36.1% (wet), 13.9% (dry)