

ABOUT WRA

Wool Research Association was established in 1963, the only national institute in the field of Wool Technology, is located in a green belt about 35 kms from Bombay (Mumbai). WRA is a centre of business activity of the country. It is well connected by two Highways. The concept of Research & Development in the field of wool technology was initiated by foresighted woolen industrialist and WRA was set up at the well-known Textile Training Institution in the premises of the V.J.T.I., Mumbai. During infancy it had a small laboratory and some educational facilities leading to Diploma in Textiles (Wool). WRA is also recognised for carrying out Applied Research leading to M.Sc and Ph.D. Degrees of Mumbai University.

Impressed with the performance most of the industrialist came forward and decided to have a full-fledged institution dealing with all aspects of wool procured a land site in 1980 of 75,000 sq. yards for the purpose. Subsequently, in 1983 the main building was constructed. In 1993 a Pilot Plant comes into being. In 1996 the ultra modern National Ecological Testing Laboratory was established to create a required infrastructure for undertaking micro analysis of dyes and chemicals, with a view to help exports, check environment & textile pollution, food and drug analysis.

Major Activities

- Basic & Applied Research / Projects in Wool Related Technology.
- Formal Education & Vocational courses
- Need Based Courses & Training at site & Consultancy
- Ultra Modern Textile Testing (Physical & Chemical)
- CAD-CAM Woven & Knitting
- Miniature dyeing & finishing of yarn & fabric.
- Woolen & Shoddy Spinning Pilot plant
- National Ecological Testing Laboratory.
- Friction Spinning – High Tech yarns.

Particulars of its organization, functions and duties

As per the Memorandum of Association the objects of the Association are

- (a) To establish a Research Institute for Wool Industry and to undertake, carry on, or help to carry on research and other scientific work in connection with the wool trade or industry including man-made fibres and other trades or research and other scientific work will include research and scientific work in, among others, the following directions:

- (i) Undertake research into the usability and the manufacture and improvement of materials used in Wool Textiles Industry and other trades or industries including man-made fibres allied therewith including sizing, dyeing, bleaching, finishing, printing and chemical stores, etc.
 - (ii) Undertake research into the utilization of the products of the Wool Textiles Industry.
 - (iii) Undertake research into the improvement of various machinery appliance used by the Wool Textiles Industry including man-made fibres and other trades or industries allied therewith and developing new machinery and appliances for manufacturing, testing and recording purposes and
 - (iv) Undertake research into and improvement of various processes of manufacture with a view to securing greater efficiency, rationalization, and reduction of costs.
- (b) To establish and maintain laboratories, workshops and conduct experiments therein; to encourage and foster education of persons engaged in or likely to be engaged in the said trades or industries; and to maintain schools and grant scholarships connected with the purpose of the Association and to employ instructors and personnel as may be considered necessary for the said purposes and to pay remuneration to them.
- (c) To edit, print, publish and exhibit books, papers and periodicals and to undertake literary activities bearing upon the said trades or industries or any of them and to collect, compile and publish scientific data and other information relating to the said trades or industries; and to maintain libraries or museums for the said purpose; to employ skilled workers and professional technical advisers to carry out the objects of the Association and to pay therefore such remuneration as may be considered expedient.
- (d) To encourage discoveries, to examine and publish information regarding the nature and merits of inventions, improvements, materials and designs connected with the said trades or industries or any of them and to take and acquire patents or licenses relating to such inventions, improvements or processes and to acquire and register designs and standardisation marks to develop, perfect and test their value.
- (e) To appoint investigators to study in India or abroad constitutional, administrative, economic and other scientific problems in regard to scientific research undertaken by the Association in regard to such problems including the financial aspect.

- (f) To accept grants of money from the Government, the Council of Scientific and Industrial Research and other public bodies, corporation, companies or persons for the purposes of the Association, on such conditions as may be agreed to.
- (g) To assist the research work of any Association or institution and other bodies incorporated or not, whose objects included Scientific and Industrial Research, in such a manner as may be considered expedient.
- (h) To establish, maintain and control branches of the Association in India and elsewhere and to dissolve or modify their constitution.
- (i) To undertake and execute any trusts which may be conducive to any of the objects of the Association.
- (j) To provide for funds for all or any of the objects of the Association whether effecting the whole of the trades or industries mentioned in clauses (a & b) or merely one or more particular parts or sections of the trades or industries or the business or any particular member or group of members of Association, in such a manner as may be considered expedient.
- (k) To borrow or raise any money that may be required by the Association upon such terms as may be deemed advisable, and in particular and with the prior approval of the Ministry of Textiles, by the issue of bonds, debentures, bill of exchange, promissory notes or other obligations or securities of the Association, or by mortgage or charge of all or any part of the property of the Association.
- (l) To draw, make, accept, endorse, discount, execute and issue promissory notes, bills of exchange and other negotiable or transferable instruments.
- (m) To invest the moneys of Association not immediately required in any one or more of the modes of investment for the time being authorised by law for the investment of trust

moneys and in the capital contribution for Gujarat Sheep & Wool Development Corpn, Ltd., Ahmedabad, with full power to alter, vary or transfer such investments in accordance with the law for the time being in force.

- (n) To purchase, take on lease or in exchange, hire or otherwise acquire any movable or immovable property, and in particular any land, building, workshops, factories, laboratories, machinery, plant, apparatus, appliances, and any rights or privileges necessary or convenient for the purpose of the Association, and to construct, erect, alter, improve and maintain any building and to manage, develop, sell demise, let mortgage, dispose of, turn to account or otherwise deal with all or part of the same and also to sell the undertaking of the Association for cash or any other consideration with a view to the promotion of the objects of the Association.
- (o) To pay all expenses preliminary or incidental to the formation of the Association and its registration.
- (p) To use the funds of the Association in the employment of persons of learning or skill, and the provision and use of buildings, and of instruments, materials and appliance, and of any of the equipment of the Association and any form of scientific studies which may be considered to have some bearing, whether immediate or ultimate, on practical problems involved in the nature or use of the textile industry and other trades or industries allied therewith.
- (q) To collect, arrange, index and publish information as to material, patents, processes, machines, appliances and tools used or known in or in regard to the textile industry and other trades or industries allied therewith or likely to be useful thereto, and to establish and maintain a Bureau of Information for the benefit of members of the Association.
- (r) To establish, support, or aid in the establishment and support, of Association, institutions funds or trust calculated to benefit employees or ex-employees of the Association or the dependents or connection of such persons, and to grant pensions and allowances to and to make payments towards insurance of such persons.

- (s) To procure the Association to be registered or recognized in any part of India or in foreign country or place.
- (t) To do all such other lawful things as may be incidental to or conducive to the attainment of the above objects.

Provided that the Association shall not support with its funds any objects, or endeavour to impose on or procure to be observed by its members or others any regulation, restriction or condition, which if an object of the Association, would make it a trade union.

The Extract from the Memorandum of Association

- a. The income and property of the Association whensoever derived, shall be applied solely towards the promotion of the objects of the Association and no portion thereof shall be paid or transferred directly or indirectly by way of dividend, gift, division, bonus or otherwise by way of profit, to the Members of the Association.

Provided that nothing herein shall prevent the payment in good faith of reasonable and proper remuneration to any officer or servant of the Association or to any member of the Association, in return for any services rendered to the Association, or for any materials, labour, plant or power supplied for experimental purposes, nor prevent the payment of interest at a rate not exceeding six percent per annum on money lent, or payment of a reasonable and proper rent for premises demised or let by any Members of the Association.

Provided further that, no Member, except the Director of Research, of the Council of the Association shall be appointed to any salaried office of the Association or any office of the Association paid by fees, and that no remuneration or other benefit shall be given by the Association to any Member of such Council of the Association except by way of repayment out-of-pocket expenses and interest at the rate aforesaid on money lent or the payment of a reasonable and proper rent for premises demised or let to the Association or any remuneration to any Member of the Council in accordance with any remuneration by or with the approval of the Ministry of Textiles.

Provided also that nothing herein shall prevent any Member of the Association, whether a Member of the Council or not, from exercising any processes and making, using, acquiring and lending any articles and things in the ordinary course of his business for

profit or otherwise under any license or permission in respect of any discovery, invention and patents resulting from work of the Association.

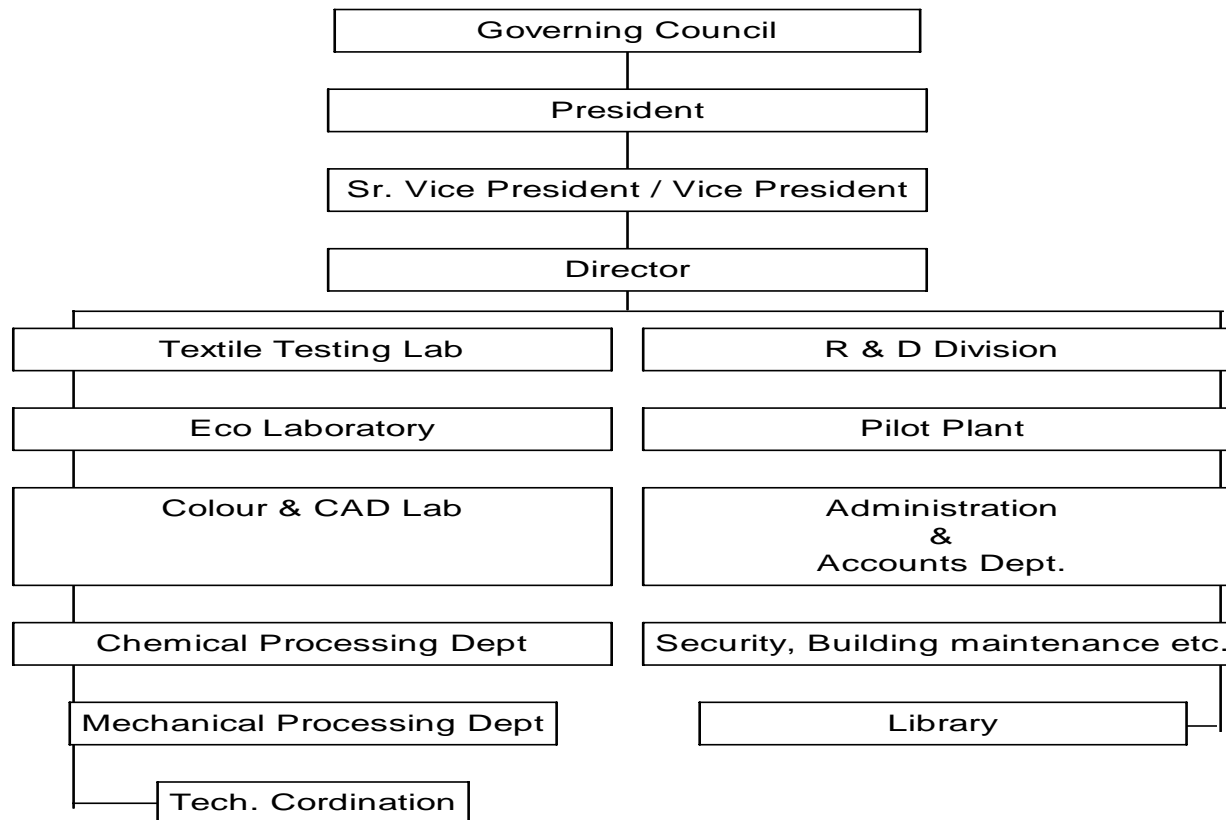
- b. Any addition, alteration, modification or removal of any clause in the Memorandum of Association and Rules and Regulations, or dissolution of the Association shall be subject to prior approval of the Ministry of Textiles.
- c. If upon winding up or dissolution of the Association there remains, after the satisfaction of all its debts and liabilities any property whatsoever, the same shall not be paid to or distributed among the Members of the Association, but shall be given or transferred to some other institution, and which shall be prohibit the distribution of its or other income and property amongst its or their Members to an extent atleast as great as is imposed on the Association under or by virtue of clause 4 hereof, such institutions to be determined by the Members of Association subject to the approval of the Ministry of Textiles at or before the time of dissolution.
- d. True accounts shall be kept of the sums of money received and expended by the Association, and the matters in respect of which such receipts and expenditure take place, of all sales and purchases of goods by the Association and of the property, credits and liabilities of the Association. Once at least in every year the accounts of the Association shall be examined, and the correctness of the balance sheet ascertained by one or more properly qualified auditor or auditors

Authorities of the Association

- (i) President
- (ii) Vice President or Vice-Presidents
- (iii) Director of Research
- (iv) Secretary and
- (v) Such other persons who may be declared to be the authorities
Of the Association by the Council

Organization Chart

Wool Research Association WRA Thane



Governing Council of the Association

“The Council of the Association shall consist of the President, Two Vice-Presidents and 12 Members. The number of Members may be increased or decreased by resolution passed at a meeting of the General Body. Subject to provision contained herein all members of the Council shall be ordinary members and / or nominated members, elected by the Association provided that always three members shall be representatives of the Ministry of Textiles. The Director of Research will be an ex-officio Member of the Council”.

Governing Council functions (as given in the MOA)

- To carry out the objects of the Association as set forth in the Memorandum of Association
- To have management of all the affairs and funds of the Association & exercise all the powers of the Association subject to conditions laid down by Resolutions of the General Body
- To manage affairs of the Association
- Shall have control in regards to all matters relating to the management and organisations of the Association
- To make, impose, vary and repeal by-laws
- To pay expenses
- To purchase or otherwise acquire
- To secure fulfillment of contract
- To institute, defend, compound or abandon
- To refer claims to arbitration
- To give receipts
- To invest Association's money
- To enter into rescind contracts
- To set up local branches of the Association
- To provide for compliance with regulations
- To establish and promote research work
- To use funds of the Association
- To collect information
- To establish and support institutions
- To pay the cost of promotion, etc. of Association
- To borrow or raise money
- To draw promissory notes and bills
- To take Offices or acquire premises
- To engage professional assistance
- To appoint Trustees, hold in trust

- To institute, conduct, defend, etc legal proceedings
- To appoint Committees
- To apply for patents
- To appoint attorneys
- To provide for compliance with regulations

Constituents of Governing Council (2008 – 2010)

CHAIRMAN EMERITUS	- Shri. B. K. KEDIA
PRESIDENT	- Shri. RAVIKANT KAPUR Grentex Co. Pvt.. Ltd
SR.VICE PRESIDENT	- Shri. S.K. SINGHAL Raymond Ltd
VICE PRESIDENT	- Shri. RAJ KHANNA Amritsar Swadeshi Woollen Mills

Members (Elected)

1.	Shri. M. L. PAMECHA	- Modern Woollens Limited
2.	Shri. BHARATBHAI PATEL	- Shri Dinesh Mills Ltd.
3.	Shri. A. K. CHURIWAL	- BSL Ltd
4.	Shri. J.C. SONI	- Jayashree Textiles
5.	Shri. SURENDRA GOEL	- Geetanjali Woollens Pvt. Ltd.
6.	Shri. P.B. VAID	- Reid & Taylor
7.	Shri. RAJEEV KAPUR	- G. R. Woollen Mills Pvt. Ltd
8.	Shri. R.L. TOSHNIWAL	- Banswara Syntex Ltd.

Members (Ex. Officio)

1. DIRECTOR (WOOL), MINISTRY OF TEXTILES, NEW DELHI
2. DIRECTOR (FINANCE), MINISTRY OF TEXTILES, NEW DELHI
3. TEXTILE COMMISSIONER, OFFICE OF THE TEXTILE COMMISSIONER, MUMBAI
4. DIRECTOR, WOOL RESEARCH ASSOCIATION

Special invitees

1. DR. G.S. SINGH, RAYMOND LIMITED, THANE
2. Shri K.C. BOTHRA, BIKANER WOOLLEN MILLS PVT. LTD.,BIKANER
3. DR. S.K. CHAUDHURI, AUSTRALIAN WOOL INNOVATION LTD, NEW DELHI
4. Shri VIVEK MEHTA, GLOBAL WOOL ALLIANCE PVT. LTD., THANE
5. Shri MAHESH SANIL, INDIAN WOOLLEN MILLS FEDERATION, MUMBAI
6. Shri OM PRAKASH, CENTRAL WOOL DEVELOPMENT BOARD, JODHPUR
7. Shri S. CHANDRASHEKHAR, GUJARAT SHEEP & WOOL DEVELOPMENT CORPN., AHMEDABAD
8. Shri A.C. CHAUDHURI, ADVISOR, WRA
9. ALL OTHER ORDINARY MEMBERS OF WRA

President's functions

He is elected by the Governing Council members and has to go for re-election every two years. Being the senior most authority he is responsible to the Council and supervising proper functioning of the Association as its head. He is also responsible for calling a meeting of the Council and be a president for the same.

Director's functions

- Shall in all matters under his charge, have powers similar to those of a Director of National Laboratory under the C.S.I.R. or such powers as may be given to him from time to time by the Council of Association.
- Shall prescribe the duties of all officers and staff of the Association and shall exercise such supervision and disciplinary control as may be necessary in accordance with these rules.
- To coordinate an exercise general supervision over all research activities of the Association.
- Shall exercise his powers under the superintendence and control of the Council of Associations

Technical Committee, WRA

CHAIRMAN : Shri. S.K.SINGHAL

MEMBERS

DR. G.S. SINGH	Raymond Ltd
Shri. C.J. CHOPRA	Reid & Taylor
Shri. K.C. BOTHRA	Bikaner Woollen Mills Pvt. Ltd.
DR. S.K. CHAUDHURI	Australian Wool Innovation Ltd.
Shri. K.N. JAGDISH	Raymond Limited
Shri. S.P. GOMBER	Reliance Industries Lid.
Shri.S.K. PATODIA	Jayashree Textiles

Representative of Textile Commissioner

DR. P. JHALA	National Institute Of Design
DR. A.N. DESAI	Bombay Textiles Research Assn.
DR. TELI	University Institute of Chemical Technology
Shri. OM. PRAKASH	Central Wool Development Board
DR. S.A. KARIM	Central Sheep & Wool Research Institute, Avikanagar
Shri. A.C. CHAUDHURI	Advisor, WRA
Shri. M.K. BARDHAN	Director, WRA
Shri. T.R. RAO	Senior Scientist, WRA
DR. C.W. ACHARYA	Senior Scientist, WRA
DR. ANURAG SRIVASTAVA	D.M.S.R.D.E. Ministry of Defence

Textile Testing Laboratory

- The Textile Testing Lab. is ISO 9001-2000 certified.
- The Textile Testing Lab is certified and calibrated by Interwoollabs Brussels, Belgium since 1970 for fineness measurement by Airflow, Projection Microscope and OFDA since 2002.
- In **October 2002** the Confidentiality Agreement was signed by WRA with AWTA Ltd., NZWTA Ltd. and WTB SA (The ILRT group) & participating in inter-lab trials.
- NABL Accreditation - ISO 17025.

The Textile Testing Lab is well equipped with the equipments for testing of the physical properties of wool and its blends from fibre to fabric with latest addition of the Optical Fineness Diameter Analyser and Uster Tester 4SX Evenness Tester machine. WRA renders its services to its members and non-members from textile industry, defence, customs, railways, state transports and other authorities.

Testing services

- ❖ Fiber / Sliver Testing
- ❖ Yarn Testing
- ❖ Fabric Testing Including Technical Textile Testing
- ❖ Carpet Testing
- ❖ Chemical Testing
- ❖ Colour Fastness Testing
- ❖ Colour Matching System For Textiles, Paints, Pigments, PVC & Pigmented Materials

Chemical Processing Laboratory

The Chemical Laboratory is well equipped for the entire laboratory dyeing & finishing treatments and chemical testing of wool and blends.

Eco-Testing & Analytical Laboratory

ANALYTICAL TESTING FACILITIES

1. **GC** – FID and TCD for Identification and Quantification of organics
2. **GCMS** for Identification, Quantification and Confirmation of Structure
3. **HPTLC, HPLC** dot Analysis for Quantification and Identification
4. **Atomic Absorption** with Graphite Hydride Generator and Mercury Concentrator for Metal Analysis at PPM and PPB level
5. **FTIR** With Drs Analysis for Quantification and Structural Identification
6. **UV Analysis** for Quantification and Identification

TESTING SERVICES

1. Testing Of Textiles & Dyes for Eco Friendly Parameters Like
 - Formaldehyde
 - Heavy Metals
 - Banned Aromatic Amines
 - Pentachlorophenol, Polychlorinated Biphenyls
 - Various Pesticide Residues - Like Hcb, Lindane, Dieldrin, Ddt Etc.
2. Testing of Pharmaceuticals & Pharma Intermediates for Purity, Impurity Profile, and Stability etc.
3. Analytical projects pertaining to method development in GC, GCMS, HPTLC and HPLC.
4. Preparative work related to separation of organic compounds.
5. Synthetic projects pertaining to new molecule development
6. Facility for bioassay determination in moth proofing
7. Undertakes research projects of industrial and national importance

Textile Designing (Cad-Cam) - Woven & Knitted

The textile designing department is well equipped with the latest equipments for computer colour matching. The department is also well equipped with advanced textile designing softwares for design creations based on modules like jacquard, dobby, printing, carpets, embroidery, with its hardware and output requirements (e.g. printers, plotters) along with Computerised Sample Weaving Loom. Besides this, it also conducts training courses on CAD designing.

Yarn & Fabric Manufacturing Labs

- Miniature machine Card, Drawing & Spg designed for Pashmina & Angora.
- DREF Spinning System
- Self Twist Spinning (Repco)
- Woolen Carding, Spg, Twisting & Winding.
- Shima Seiki Flat Bed Knitting machine with CAD-CAM designing
- Carpet Loom
- Rapier Weaving Machine

S.No	Names of Employees	Designation	Qualification / Experience
1	Mr. M. K. Bardhan	Director	M. Tech., MBA, FISE, ndc Exp : 43 years

Textile Testing Department

2	Mr. Vilas Chandrakant Panse	Scientist C	B.Sc Exp : 30 years
3	Mr. Rajendra Bhagwat Chaudhari	Sr. Technical Assistant	B.Sc Exp : 26 years
4	Mr Achintya kumar Samanta	Scientist - B	M. Tech
5	Mr Jagadananda Behara	Scientist - B	B. Text
6	Mrs Sunita M. Nehate	Technical Assistant	B.Sc. Exp; 10 years
7	Mr. Nilesh Gudhka	Technical Assistant	B.Sc., LTC Exp; 5 years

Eco Testing Department

8	Dr. Chandrashekar Waman Acharya	Scientist E-1	M.Sc. Ph.D Exp : 29 years
9	Mr. Jayant Udhakhe	Scientist - B	M. Tech
10	Mr. Girish Kherdekar	Scientist - B	M. Tech
11	Mrs. Smita Sunil Gavankar	Sr. Technical Assistant	B.Sc Exp : 23 years
12	Mrs.Kunda Shankar Patil	Jr. Technical Assistant	B.Sc Exp : 13 years
13	Mr. Shivaji Ananda Ghodke	Lab Attendant	Non-matric Exp : 27 years

Textile Department

14	Mr. Pralhad Raghavendrarao Kulkarni	Textile Technologist	B.Text. M.C.A. Exp : 17 years
15	Mr. Shishir Tyagi	Scientist - B	B. Tech
16	Mr. Mayur Basuk	Scientist - B	B. Tech
17	Ravindra Shreenivas Bahaguni	Textile Technologist	Diploma (text) Exp: 23 years

Textile Chemical, Colour and Design Lab

18	Mr. T. R. Rao	Scientist E	M.Sc. Exp : 34 years
19	Miss. Smita P. Honade	Scientist - B	B. Tech
20	Mr. Aniket S. Bhute	Scientist - B	B. Tech

Technical Co-ordination

21	Mr. Neeraj Shrivastava	Scientist - B	B. Tech
22	Mr. Varun S. Goud	Scientist - B	B. Tech

Administration & Accounts Staff

23	Mr. Sopan Krishna Dalvi	Accounts Officer	Accts Officer Exp : 40 years
24	Mr. Ratnakar Vaman Bhandarkar	Junior Accounts Officer	B.Com Exp : 23 years
25	Mr. Shashikant Sahdeo Kadam	Assistant Maintenance	Asst. Maintenance Exp : 29 years
26	Ms. Leena Bhalchandra Bane	Stenographer	B. A. Exp : 14 years
27	Mrs.Jenet Thomas D'souza	Stenographer	B.Com Exp : 12 years
28	Mrs.Chaya Anant Bhute	Telephone Operator	S.S.C Exp : 14 years

Supporting Staff

29	Mr.Tanaji Gopal Howale	Peon	S.S.C Exp : 33 years
30	Mr. Bhiva Shrimant Patil	Lab Attendant	Non-metric Exp: 25 years
31	Mr. Sudam Kashinath Erale	Driver	S.S.C Exp: 12 years
32	Mr. K. S. Sahani	Security Guard	Exp: 12 years