

NATIONAL BUREAU OF STANDARDS REPORT

9427

REPORT ON INTERNATIONAL TRAVEL TO LATIN AMERICA

TO

PARTICIPATE IN THE DEVELOPMENT OF
PAN-AMERICAN STANDARDS FOR TEXTILES

May 8 - May 21, 1966

By

Josephine M. Blandford
Materials Evaluation Laboratory

October 10, 1966



U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS

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1. ABSTRACT

This report gives (1) an account of the third OAS-COPANT International Seminar on the Standardization of Textile Products, a working meeting of Technical Committee 6 on Textiles of the Comisión Panamericana de Normas Técnicas (COPANT/C6), held in Montevideo, Uruguay, from May 8 through May 21, 1966; (2) comments and actions on 28 COPANT Recommendations, of which 20 were approved as Draft 1, 3 returned as "Schemes" to the Technical Secretariat, 1 rejected, and no action taken on 4. Agreement was reached on the scope and procedure to be covered in a fourth scheme to be developed by the Technical Secretariat.

A summary account is included of discussions with technical personnel of Industry, Government, and Standards Institutions. This information on organization, facilities, and activities was obtained during visits following the Seminar.

2. SPONSOR

This activity was sponsored by the National Bureau of Standards in cooperation with the American Standards Association (ASA)¹ which represents both the industrial and Governmental interests of the United States in international standards organizations. The Pan-American Standards program of ASA is directed by Committee L23 of ASA. To accomplish this work, Committee L23 receives technical guidance from other national organizations concerned with the development of textile standards: Committee D-13 on Textile Materials of the American Society for Testing and Materials (ASTM); the Executive Committee on Research of the American Association of Textile Chemists and Colorists (AATCC); and the National Bureau of Standards (NBS).

3. 1966 OAS-COPANT INTERNATIONAL SEMINAR ON TEXTILE PRODUCTS

3.1 INTRODUCTION

The 1966 OAS-COPANT International Seminar on Textile Products was held in Montevideo, Uruguay, from May 8 through May 21, 1966. Host of the Seminar was the Instituto Uruguayo de Normas Técnicas.

¹Effective on September 1, 1966, was the change in name from "American Standards Association (ASA)" to "United States of America Standards Institute (USASI)". "ASA" is used, however, throughout this report.

(UNIT). Señor Héctor Camiou, UNIT, was Director of the Seminar, and Prof Juan V. Cabrerizo, Field Director of OAS, the Consultant. The Delegation was delighted to have present Dr. Juan P. Molfino, Director of UNIT.

UNIT's preparation for the Seminar, involving many details and much work, the facilities provided for the conduct of the meetings and the comfort and convenience of the Delegation, and the hospitality and labors of the Director and staff during the Seminar contributed immeasurably to its achievements.

The preliminary drafting of COPANT/C6 Recommendations, the subsequent work relating to them, and other technical preparations for the Seminar, were most competently performed by the Technical Secretariat of COPANT/C6, the Instituto Nacional de Normas Técnicas Industriales y Certificación (INANTIC).

The 1966 Seminar was the third textile standardization seminar of OAS Project No. 207 held under the auspices of the Organization of American States (OAS) within the Regional Standardization Program to Aid Economic Integration. Its objectives, and those of the program since its conception, were: to develop technical standards suitable to Latin America; to integrate the efforts of Latin America for the common cause of advancing the productive level required by present industrial developments; to remove technological barriers for improving the quality of products in commerce; to establish textile standards as a basis for the development of regular trading relations within the American continent; and to aid in inter-American economic integration.

The 1966 Seminar was a continuation of the program initiated in 1961 and 1962 and advanced appreciably by the 1963 and 1964 Seminars which approved 32 COPANT Recommendations, of which 17 have since been adopted by the COPANT Council as COPANT Standards.² The status of the 20 COPANT Recommendations which were approved at the 1966 Seminar will be determined in future actions of the COPANT Council. Two reports by Dr. Herbert F. Schiefer, NBS Consultant on Textiles, and two by this writer discuss the previous programs and accomplishments through 1964.³

² In the Appendix, 3.12, see "COPANT Standards Adopted by the COPANT Council in 1964".

³ NBS Report No. 8645, J. M. Blandford (February 25, 1965).
NBS Report No. 8196, J. M. Blandford (February 26, 1964).
NBS Report 7585, H. F. Schiefer (August 6, 1962).
NBS Report No. 7770, H. F. Schiefer (December 19, 1962).

The seminar was again selected as the preferred form for the working meetings of COPANT/C6. Its advantages are numerous and distinct: It brings together at one time and place the delegates of the member countries of COPANT/C6; it provides time for the discussion and development of standards essential to the needs of Latin America; it permits an exchange of technical information on matters of mutual interest to the Americas; and affords an opportunity for the delegates to make or cement friendships.

An additional advantage of a seminar meeting is that, because of representation by the member countries of COPANT and by attendance by all of the active members of the Technical Committee, the Recommendations developed and approved by a seminar are equivalent to one of the stages of the COPANT requirements for their acceptance. Thus, the seminar accelerates the adoption of COPANT Standards.

3.2 DELEGATES

Delegations from 10 COPANT member countries attended the Seminar: Argentina; Brasil; Chile; Colombia; Mexico; Paraguay; Perú; United States; Uruguay; and Venezuela. Guatemala, a member country of COPANT, and spokesman for the 5 countries of Central America (Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua), participated by sending official comments on the previously circulated COPANT Recommendations. (Regrettably, the Guatemalan delegate was ill and so canceled out just prior to the Seminar.)

The U.S. was represented by eleven delegates accredited by the ASA, the majority of whom stayed for short periods, each relating to the technical sessions concerned with the delegate's area of specialization. Mr. Charles A. Sylvester, Leader of the U.S. Delegation, was chairman of the U.S. Delegation the first week, and Miss Josephine M. Blandford, Alternate Leader, was chairman the second week.

The names and affiliations of all delegates attending the Seminar are given in the Appendix, 3.12. It may be noted here that each Delegation was identified and recognized by the national standards body of the country represented.

Present also at the Seminar, but in the capacity of observers, were members of national standards institutes of the COPANT member countries, and members of the Latin America Free Trade Association (LAFTA) which does not develop standards but is intensely interested in, and relies upon, COPANT Standards for the development of international trade and coordination of Latin-American industries with the Common Market.

3.3 AGENDA

The Seminar agenda comprised 28 COPANT Recommendations (in "Scheme" or "Draft" form⁴) prepared by the Technical Secretariat and its Subcommittees. The subjects for these were approved by the 1964 Seminar Delegation for priority consideration based on their immediate usefulness to the Latin-American textile industries.

The bases used in preparing these Recommendations were the previously submitted applicable technical standards of the ISO, ASTM, AATCC and, to a lesser degree, the methods of test developed by the Latin-American countries.

Prior to the Seminar, the Scheme or Draft Recommendations had been circulated for review and comment within the member countries of COPANT by the official national standards organizations in Central and South America, Mexico, and the United States. The combined comments were then considered by INANTIC, the Recommendations revised to accommodate the changes indicated, and the Recommendations again circulated for comment. The composite of the technical comments thus obtained represented the official opinions of the countries represented, and were those expressed by the respective delegates at the Seminar.

The agenda⁵ comprised 28 Recommendations: 9 on colorfastness; 1 on dimensional changes of plain and knitted goods (exclusive of wool); 1 on appearance of fabrics after laundering and use; 8 on wool; 1 on types of alpaca, according to fiber fineness; 3 on terminology and definitions; 1 on classification of textile fibers; 1, listing natural and synthetic fibers; 2 on yarn (irregularity and sampling); 1 on conditioning for testing; and 1 on commercial moisture regain of textile fibers.

3.4 OPENING OF THE SEMINAR

The inauguration of the 1966 OAS-COPANT International Seminar on Textile Products was held on May 9 at the Instituto Uruguayo de Normas Técnicas (UNIT) in Montevideo, Uruguay. Dr. Juan P. Molfino, Director of UNIT, presided. Present were Prof. Juan V. Cabrerizo, Field Director of OAS, representatives of the Latin America Free Trade Association (ALALC) and the Asociación Industriales Latino Americanos (AILA), and persons of prominence in Government and Industry.

⁴ In the Appendix, 3.12, see "Nomenclature of the Different Stages of Study".

⁵ The agenda is given in the Appendix, 3.12.

The program was informative and most cordial: Dr. Molfino extended a hospitable welcome to the Delegation and spoke briefly of the contributions made by this standardization activity to Latin America; Prof. Cabrerizo spoke of the background of the OAS-COPANT program, its political and technical problems, its significance on national and international levels, and its effect on economic growth.

The speakers who followed commented on the OAS-COPANT Seminars as furthering better understanding, cooperation, and economic integration among the Americas; providing a means for improving the quality of goods in commerce, and removing technological barriers to the expansion of industry and promotion of national and international trade.

3.5 CONDUCT OF SEMINAR MEETINGS

Prof. Cabrerizo, Field Director of OAS, opened the first meeting of the Seminar. He announced that Señor Héctor Camiou, UNIT, had been designated as Director of the Technical Meetings, and that Señorita Margarita Moreno and Señor Heriberto Márquez had been appointed Secretaries so that the delegates would be relieved of this responsibility (a revolving task at former Seminars) and so devote full time to the documents and work of the Seminar.

Prof. Cabrerizo stated that the meetings would be conducted according to OAS and COPANT Rules, and that the delegates should present concise discussions and avoid those not related to technical matters.

Attention was called by Prof. Cabrerizo to a new rule in effect, a change in Article 38 of the COPANT Rules, which established that approval of a Recommendation requires only a 2/3-majority vote for approval, not the unanimous approval previously required. This change was of great surprise and concern to the Delegation, the majority of whom had received no news of it. ASA and others expressed opposition to it. Following discussion, it was agreed to acquaint COPANT, via the minutes of this meeting, of the opinions expressed concerning it; to abide by the present rules so as not to hamper the progress of the Seminar, but to try for unanimous agreement in voting for approval of Recommendations.

Another change in COPANT rules, the Delegation was informed, requires the designation of a delegation by its national standards organization, e.g., "ASA" for the U.S., "UNIT" for Uruguay, etc. After much discussion, it was agreed to include

both the country and national organization of the delegate in the minutes of the Seminar, and thereafter to recognize or refer to the delegation of a country as "ASA", "ABNT", etc.⁶ (They are so designated throughout the remainder of this report.)

A standing Editorial Committee (of delegates of ASA, IRAM, ABNT, INANTIC, and DGN), announced for the duration of the Seminar, was replaced - upon approval of a motion made by IRAM and seconded by ABNT - by an Editorial Committee to be appointed for each area under discussion, these to permit participation by all countries.

The Delegation was informed that the hours of the technical meetings would be from 8 AM to 12 N and 2 PM to 6 PM, these to be followed immediately by the work of the Editorial Committees; that Technical Committees would be appointed by the Seminar Director, Señor Camiou, when necessary or desirable.

The chair was then turned over to Señor Camiou who announced a short recess to be followed by the first of the technical meetings.

3.6 ACCOMPLISHMENTS: ACTIONS ON RECOMMENDATIONS

Following is a summary of actions taken on the Recommendations considered by the Seminar:

<u>Action</u>	<u>COPANT Recommendation</u>
Approved as Draft 1, 20:	6:1-001; 6:1-002, 6:1-007, 6:1-006, 6:1-004, 6:1-005, 6:1-008, 6:1-009, 6-047, 6-049, 6:3-007, 6:3-010, 6:3-011, 6:3-012, 6:3-013, 6:4-001, 6-045, 6-005, 6-046, and 6-048
Returned to Technical Secretariat, 3:	6:1-003 (Scheme 1), 6:3-009 (Scheme 1C), and 6:2-001 (Scheme 1)
Rejected, 1:	6:3-003 (Scheme 1A)
No action, 4:	6-001 (Scheme 1C), 6-003 (Scheme 1B), 6-004 (Scheme 1B), and 6-006 (Scheme 1B)

Those Recommendations which were approved as Draft 1 are but one stage away from their adoption as COPANT Standards, that is, formal action by the member countries of COPANT.

⁶ In the Appendix, 3.12, see "Delegations Attending the 1966 OAS-COPANT International Seminar on Textile Products".

A brief account of the action taken on each Recommendation is given on the succeeding pages.

<u>Dates Discussed</u>	<u>Recommendations: Modifications of; Action on</u>
5/9	COPANT 6:1-001, COLORFASTNESS OF TEXTILE MATERIALS - FASTNESS TO CROCKING

This method, based on AATCC Standard Test Method 8-1961 (ASA L14.72-1963), was approved as Draft 1 following minor revisions which included instructions on the preparation of a specimen from loose fibers, a change in specimen size from 5 x 12.5 cm to 5 x 14 cm, and provision for the evaluation of colorfastness to crocking of white pigments.

It was agreed unanimously that the Technical Secretariat of SC 6:1 and its member countries study the IRAM proposal that "in case the sample to be tested is printed with white pigment, a test cloth must be used which has been dyed black with Vat Green No. 9, Colour Index No. 59 850 which was oxidized by the chlorination method". Notice of this proposal was sent to the General Secretariat of COPANT and to the Technical Secretariat of COPANT/C 6 for action and consideration during the period of public discussion, i.e., 4 months following the Seminar. During this time SC 6:1 will study and report to COPANT/C 6.

5/10,11	COPANT 6:1-002, COLORFASTNESS OF TEXTILE MATERIALS - FASTNESS TO HOT PRESSING
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This method, based on a composite of AATCC Tentative Test Method 5-1962T (ASA L14.71-1964) and ISO/R 105, Part 17, was approved as Draft 1. It was prepared by an appointed Technical Committee which combined the features of the ISO Standard on which the IRAM and ABNT proposals were based with those proposed by ASA and based on the AATCC method.

Resulting modifications were: expansion of the scope to include all fibers; 4 ranges of testing temperatures; inclusion of multifiber test cloth; 3 ironing procedures; movement of the iron in "humid" ironing; adoption of an ironing period of 12 \pm 1 sec; and inclusion under "Observations" of the fibers for which the temperature ranges are applicable.

Dates
Discussed

Recommendations: Modifications of; Action on

COPANT 6:1-002 (Continued)

It was agreed that the ironing time of 12 \pm 1 sec be studied by the AATCC, the test results to be reported by SC 6:1 to COPANT/C 6 before the end of the public discussion period.

The development of this method represents a contribution by Latin America to the improvement of an ISO Recommendation, an indication that Latin America can contribute to, as well as benefit from, ISO. This Recommendation will be proposed by ASA to the ISO for consideration.

5/10, 11, 13

COPANT 6:1-007, COLORFASTNESS OF TEXTILE MATERIALS -
FASTNESS TO DRY PLEATING AND SETTING

This method, based on a substitute Scheme proposed by IRAM, was approved as Draft 1. The IRAM proposal was based on ISO 365-E of January 1966, and was preferred to that of ASA based on another and recent ISO method with a new approach.

ASA abstained stating that no opposing views on its proposal had been received previously, and that the ASA proposal resulted from the ISO work in Durham, North Carolina, in 1964, the basis for a current ISO "test under consideration" and an AATCC method also being considered.

5/11

COPANT 6:1-006, COLORFASTNESS OF TEXTILE MATERIALS -
FASTNESS TO STEAM PLEATING

This method, based on AATCC Tentative Test Method 31-1962T (ASA L14.63-1964), was approved as Draft 1. The AATCC method, considered simpler in form and easier to follow than the equivalent ISO method, was approved as a base with the proviso that information on pleating papers be given under "Observations".

Subsequently, the following "Note" was approved unanimously: "It should be taken into account that the papers used for commercial pleating may sometimes contain reducing agents, which, in the presence of coloring materials, may produce a greater change in color than that which occurs in testing conditions."

Dates
Discussed

Recommendations: Modifications of; Action on

5/11

COPANT 6:1-003, COLORFASTNESS OF TEXTILE MATERIALS -
COLORFASTNESS TO PERSPIRATION

Action: The Scheme proposed by ASA, based on AATCC Standard Test Method 15-1962 (ASA L14.56-1963), was returned to SC 6:1 with the observations of the plenary meeting so that it may be revised as indicated; the IRAM Standard, based on the equivalent ISO Recommendation, is being sent to the Technical Secretariat of COPANT C/6 with the request that it be used for a second Scheme based on ISO. These two Schemes are then to be distributed by the Technical Secretariat (INANTIC) to the member countries of COPANT/C 6 for consideration and comment.

Although agreement was reached on a number of modifications (use of multifiber cloth, purity of reagents, and temperature), agreement could not be reached on the acid solution, or on the approval of either the ASA or IRAM (ISO-based) proposals. The majority considered the 3.5 pH of ASA too low, and ASA and several others, that of the ISO too severe. Added to this was a lack of familiarity with the use of both: the ISO method was generally known, but only three countries had had experience with the ASA method.

5/11,12

COPANT 6:1-004, COLORFASTNESS OF TEXTILE MATERIALS -
FASTNESS TO OXIDES OF NITROGEN

This method, based on AATCC Standard Test Method 23-1962 (ASA L14.54-1964), was approved as Draft 1 following minor editorial corrections and the inclusion of the provision that when ironing is required, a control specimen be ironed under the same conditions for the purpose of evaluation.

5/9,10

COPANT 6:1-005, COLORFASTNESS OF TEXTILE MATERIALS -
FASTNESS TO OZONE IN THE ATMOSPHERE

This method, based on AATCC Tentative Test Method 109-1963T (ASA L14.174-1964), was approved as Draft 1.

This method, after minor changes in wording, was approved with the proviso that ASA provide the dye formulas, the English names and the identification numbers of the dyes used, and sources of supply for the control sample, when available. Approval was given for the editorial inclusion of these in the Appendix.

Dates
Discussed

Recommendations: Modifications of; Action on

5/13,14

COPANT 6:1-008, COLORFASTNESS OF TEXTILE MATERIALS -
FASTNESS TO CARBONIZING

This method, approved as Draft 1, was developed from the substitute Scheme proposed by UNIT and based on the corresponding ISO Recommendation. As approved, it included the test control from the ASA proposal which was based on AATCC Standard Test Method 11-1957 (ASA L14.3-1960).

There was much discussion on the ASA and UNIT proposals, the former thought to evaluate textile colorants and dyestuffs, and applicable only to cloth; and the latter, colored textiles (yarn, cloth, etc.). Although ASA stressed the practical and economic importance of testing the effect of dyes on wool prior to their application to thousands of pounds of cloth, the consensus was: 1. that Latin America does not manufacture dyes and so is concerned chiefly with dyed cloth, and 2. that the application of dyestuffs is dealt with in COPANT 6-030.

UNIT's proposal, ASA stated, arrived in Spanish the day the Delegation left for the Seminar and so could not be studied. ASA, however, expressed agreement with the corresponding ISO method and so was willing to discuss it as a basis.

Consequently, the Recommendation approved was that of UNIT after modification which included: a change in dyebath ratio from 50:1 to 20:1; a change in concentration of the ammonia solution from 0.2 g NH₃ per liter to 0.4 g NH₄OH per liter; a drying time of 30 instead of 15 min; a requirement that the wetting agent be non-ionic; and the inclusion of the test control in ASA's proposed method.

5/13

COPANT 6:1-009, COLORFASTNESS OF TEXTILE MATERIALS -
FASTNESS TO ALKALINE MILLING

The method approved as Draft 1 was the ISO Recommendation proposed by IRAM as a substitute for that drafted and proposed by ASA.

Opposition to the ASA proposal had been expressed by IRAM to the Technical Secretariat of SC 6:1 in

Dates
Discussed

Recommendations: Modifications of; Action on

COPANT 6:1-009 (Continued)

January but without a specific request for consideration of the ISO method, the basis of the proposal submitted at the Seminar in Spanish. Had such a request been made, ASA stated, SC 6:1 would gladly have prepared a draft based on ISO.

Discussion of these proposals indicated familiarity of the Delegation with the ISO method and a preference for it because of the concentration of solutions and the conditions of test.

ASA expressed its willingness to accept the IRAM proposal and suggested that, to conserve time, the ISO method be discussed in its present form and then go to the Editorial Committee for conversion into COPANT form. This was done, and the Recommendation then approved.

5/13,14

COPANT 6-047, METHOD OF TEST FOR DIMENSIONAL CHANGE
BY LAUNDERING NEAR THE BOILING POINT

This method, approved as Draft 1, was developed from Draft Recommendation ISO 892, on the proposal of IRAM and ABNT that it be substituted for the ASA proposal based on it.

Because the IRAM-ABNT proposal was in Spanish, and ASA had voted to accept the ISO method but not in Spanish, the ISO method was put into COPANT Spanish and then into COPANT English prior to discussion.

The method which resulted incorporated the following modifications: 1. use of a washing machine having 3-4 fins, a diameter of 40-60 cm, a peripheral speed of 50-55 rpm, and facilities to heat the water to a temperature of 95 C within 10 minutes of its entering the wash wheel; 2. requirement that the hardness of the water must not exceed 100 ppm of CaCO_3 ; 3. use of anhydrous sodium carbonate; and 4. inclusion of specific requirements for the neutral chip or powdered soap to be used.

Comments on other points of interest: 1. It was voted, after some discussion, to retain the note

Dates
Discussed

Recommendations: Modifications of; Action on

COPANT 6-047 (Continued)

regarding the reporting of dimensional changes after repeated laundering cycles; 2. approved was the proposal of UNIT that COPANT in the future standardize soaps and detergents for textiles; 3. another ISO test in the process of development deals with dimensional changes by laundering at the boiling point.

5/14

COPANT 6-049, WASH-AND-WEAR FABRICS - METHOD OF TEST FOR EVALUATING THE APPEARANCE AFTER LAUNDERING

The proposal of IRAM, restricted to 1 method of evaluation, that of low-angle lighting, was modified to include the two evaluation procedures, low-angle and overhead lighting, proposed in the ASA Scheme based on AATCC 88A-1964T (ASA L 14.123-1964).

The reasons for the use and importance of including each procedure were provided by ASA: 1. low-angle lighting, employing 3-dimensional replicas, enables one to evaluate small differences in surface characteristics not obtainable with overhead lighting; 2. overhead lighting, employing photographs, enables one to evaluate the overall appearance of a garment; 3. both evaluation procedures are used commercially, although overhead lighting is used mostly for the evaluation of general appearance.

It was mentioned that an extension of the low-angle evaluation procedure, now being studied by AATCC, will permit the evaluation of fabrics which cannot now be measured.

As a result of the discussions on the availability in Brasil of automatic washers meeting the requirements of this method, the ABNT will consult manufacturers and report its findings to the Technical Secretariat. (It is understood that this Recommendation relates to the Kenmore machines produced in the USA by Sears and not imported by Brasil.)

Dates
Discussed

Recommendations: Modifications of; Action on

5/16

COPANT 6:3-003, METHOD OF TEST TO DETERMINE THE LENGTH OF FIBERS IN WOOL TOP BY MEANS OF A MANUALLY OPERATED COMB CLASSIFIER (SCHLUMBERGER TYPE)

Despite the interest expressed at the 1964 Seminar to have a procedure based on the Schlumberger, this Scheme 1A was rejected because the apparatus is no longer made, and because the procedure in COPANT 6:3-007 is preferred.

5/16,17,19

COPANT 6:3-007, WOOL - METHOD OF TEST FOR DETERMINING FIBER LENGTH IN WOOL TOP BY MEANS OF A MANUAL COMB SORTER

This Recommendation, based on ASTM D 519-58 (ASA L14.32-1957), was approved as Draft 1.

Considerable discussion occurred on the scope and apparatus for this method, resolved by approval of the INANTIC proposal to confine the method to the Suter sorter. Approved also were the following modifications: 1. rewording of the definitions of "barbe" and "hauteur"; 2. specifying the accuracy of the balance (to 0.1 mg), but not its type; 3. expansion of the description of the apparatus, especially that concerning the combs and the needle spacing; 4. requiring that the sample be representative and selected according to the size of the lot as given in an accompanying empirical table; and 5. inclusion, as Table II, of an alternate method of calculating mean length, hauteur. (Table I gives the calculation of mean length, barbe.)

Table II, it was mentioned, provides the parameters needed in the future for application to electronic apparatus.

ASA will transmit the photograph of the apparatus, Fig. 1 in ASTM D 519, for use in this Recommendation.

It was interesting to hear that the statistical terminology used in this method was formulated by the Central Statistics Committee on Quality, COPANT-132.

<u>Dates</u> <u>Discussed</u>	<u>Recommendations: Modifications of; Action on</u>
5/16, 20, 21	COPANT 6:3-009, WOOL - METHOD OF TEST FOR THE DETERMINATION OF AVERAGE DIAMETER (FINENESS) OF FIBERS BY AIR FLOW APPARATUS

Scheme 1C of this method, based on the WIRA apparatus, was returned to the Technical Secretariat Subcommittee on Wool (IRAM-UNIT) for further study and editing.

Although this method, as Scheme 1B, had been circulated by IRAM to five members of the Wool Subcommittee (UNIT, ABNT, ICONTEC, ASA, and INANTIC), and so should be nearing the end of its study, there were many observations made concerning it: 1. it was lengthy, complicated, and resembled a text more than a standard; 2. it was based on the WIRA sponsored by the FLI, but perhaps should reference other methods or be based on the micronaire, there being a number of comments made on the precision of these two instruments, and the application of each to commercial transactions and arbitration.

Following agreement on the WIRA instrument, the method was referred to a Technical Committee (IRAM, INDITECNOR, ASA, and UNIT) for simplification of the text.

Returned to the plenary meeting as Scheme 1C, the method was again discussed. Agreed upon were: 1. conducting the test in the standard atmosphere thereby eliminating the use of corrections for moisture and temperature; 2. the use of reference slivers for the correction of pressure; 3. the addition of a paragraph on the determination and correction of barometric pressure; 4. the inclusion of a statement on the relative precision of this method as compared with that employing the projection microscope; and 5. the deletion of Chapter 4 on "Observations" (covering calibration, instruments, statistics, corrections, types of wool, etc.), and substituting for it only a reference to the instrument used.

Item 5 was approved by majority vote with ABNT and IRAM abstaining for the reason that they considered the discussion incomplete and the voting hastily done.

By agreement Scheme 1C was referred to an Editorial Committee for incorporation of the major points of

Dates
Discussed

Recommendations: Modifications of; Action on

COPANT 6:3-009 (Continued)

agreement. This Committee reported back to the plenary meeting that a lack of time prevented their doing so. For this reason and other discussions which failed to resolve the statements of precision and other provisions, Scheme 1C was returned to the Wool Subcommittee. Expressed was hope that information concerning the material deleted (Chapter 4) would be sent to that Subcommittee during the period of public discussion.

5/16

COPANT 6:3-010, WOOL - METHOD OF TEST FOR THE DETERMINATION OF pH of AQUEOUS EXTRACT

This method was approved as Draft 1. It was based on the Standard of the FLI with the addition of a section on specimen preparation corresponding to that in ASTM D 2165-61T.

Minor modifications included: use of a pH meter; specifying that the water temperature of the aqueous extract be 20 ± 2 C, and that the extract be shaken for 1 hour, at first by hand, and then mechanically at the rate of 40 shakes per minute.

5/17

COPANT 6:3-011, WOOL - METHOD OF TEST FOR THE DETERMINATION OF ALKALI SOLUBILITY

This method, based on ASTM D 1283-64 (ASA L14.105-1960), was approved as Draft 1.

Only minor modifications were made in this Recommendation: substitution of "rubber" for "cork" stoppers in test tubes; and requiring that "ground" glass stoppers be used in weighing bottles, and that the desiccant be calcium chloride or silica gel.

It was mentioned by INANTIC that the Technical Secretariat will, in the near future, prepare a Scheme on acid solubility.

Dates
Discussed

Recommendations: Modifications of; Action on

5/18, 20

COPANT 6:3-012, WOOL - METHOD OF TEST FOR THE DETERMINATION OF MOISTURE REGAIN BY OVEN DRYING

This method, based on ASTM D 1576-64 and prepared by IRAM, was approved as Draft 1. A substitute proposal submitted by UNIT was rejected because of differences in scope, testing atmosphere, and the reporting of results, and because it omitted any reference to the term "regain". Applicable portions of UNIT's proposal were, however, considered during the interesting discussions which ensued.

The changes included in the approved Recommendation were considered most satisfactory: the method determines moisture regain, not moisture content; the weighing and drying temperature specified is 105 C; the correction of results is deleted and a requirement inserted that the RH at which the test is made must be reported; the sampling method is deleted.

Approved unanimously was the proposal that the Technical Secretariat be requested to submit a project on sampling, which, if approved, would pass to the level of a Scheme.

5/17

COPANT 6:3-013, WOOL - TEST METHOD TO DETERMINE THE CONTENT OF SOLVENT EXTRACTIBLE MATTER IN DRIED WOOL

This method, based on ASTM D 1574-64, was approved after rapid agreement on the following changes: temperature of the drying oven from 103 \pm 3 C to 105 \pm 2 C; weighing range of the scale from 100 g to 0.001 g to 100 g to 0.0001 g; from "appropriate" desiccant to the use of calcium chloride or silica gel; and from weighing the specimen to 0.25 per cent of its weight to 0.01 g of its weight.

INANTIC made a general request that a method, based on the instruments available in mills, be developed for the extraction of wool grease. In response, the Field Director stated that this is a subject for a round table not a plenary meeting.

<u>Dates</u> <u>Discussed</u>	<u>Recommendations: Modifications of; Action on</u>
5/17,18	<p>COPANT 6:4-001, ALPACA - CLASSIFICATION AND FINENESS SPECIFICATIONS</p> <p>This Recommendation, based on ASTM D 2252-64T (ASA L14.186-1965), was approved as Draft 1 following editorial simplification which included deletion of the supplementary and final sections on background, acknowledgments, and references.</p> <p>The Director of the Technical Meetings congratulated INANTIC and Eng. Villarroel, the author of the original and important Standard adopted by ASTM.</p>
5/21	<p>COPANT 6-001, TERMINOLOGY AND DEFINITIONS RELATING TO FIBERS AND TEXTILE PRODUCTS</p> <p>No action was taken on Scheme 1C of this Recommendation which was returned to the Technical Secretariat with the brief observations of the Plenary Meeting.</p> <p>A short discussion of this Scheme pointed up the objections of ASA and others to its title, scope, and content, and emphasized the need for more work on it prior to serious consideration.</p>
5/16,19	<p>COPANT 6-003, TERMINOLOGY AND DEFINITIONS RELATING TO THE CONDITIONING OF TEXTILE MATERIALS</p> <p>No action was taken on Scheme 1B of this Recommendation which was returned to the Technical Secretariat with the observations of the Plenary Meeting.</p> <p>Of the three Schemes proposed (by COPANT, IRAM, and ASA), that of ASA was decided upon as the basis for discussion which was intensive and concerned: the importance of retaining this Scheme as an individual document; substituting the definitions in it for those in COPANT 6-045 on conditioning for testing, with the transfer of the remaining definitions to COPANT 6-004 on definitions relating to tests of textile materials, and the subsequent elimination of this Scheme.</p> <p>Final agreement was reached on the incorporation of six Scheme 6-003 definitions in COPANT 6-045, and the return of Scheme 1C of 6-003 to the Technical Secretariat for further study as a separate document. The definitions transferred, after editorial modification and approval, were for the terms "standard</p>

Dates
Discussed

Recommendations: Modifications of; Action on

COPANT 6-003 (Continued)

atmosphere", "conditioning", "standard condition", "standard atmosphere for testing", "moisture equilibrium", and "preconditioning".

5/21

COPANT 6-004, DEFINITIONS RELATING TO TESTS OF
TEXTILE MATERIALS

No action was taken on this Recommendation due to the lack of time. Consequently, as Scheme 1B, it was returned to the Technical Secretariat with the request that, because of its importance and need, it be given priority consideration at the next meeting or Seminar of COPANT/C 6.

5/20,21

COPANT 6-005, TEXTILES - CLASSIFICATION OF FIBERS

Three versions of this Recommendation were presented for discussion, those of ABNT, DGN, and COPANT, based on the fiber classification chart which was in ASTM D 2368-65 (ASA L14.192-65). Following discussions in which the Delegation agreed that Table I was similar in all three proposals, a vote was approved to discuss the COPANT version of Table I and the ABNT version of Table II.

The major modifications approved, after the expression of many opinions on terms, definitions, and format, were: 1. substitution of "manufactured" fibers for "man-made" fibers (2.2 and Table II); 2. inclusion of the Brussel Tariff Convention definitions of "synthetic" and "regenerated" textile fibers; 3. substitution of "vegetable" for "cellulose" and "animal" for "protein" fibers in Table I, with the addition there of root vegetable fibers and the example, zacatan; and 4. in Table II, classifying organic manufactured fibers as "regenerated (natural polymers)" and "synthetic (man-made polymers)".

Some interest was expressed by the observer of LAFTA in adding additional names of common fibers to the examples given in Table I. A request for this information could, the Field Director commented, be circulated by the Technical Secretariat.

Dates
Discussed

Recommendations: Modifications of; Action on

5/21

COPANT 6-006, LIST OF NATURAL AND SYNTHETIC FIBERS

Due to the lack of time, no action was taken on this Recommendation which was based in part on ASTM D 2368-65 (ASA L14.192-1965). Consequently, as Scheme 1B, it was returned to the Technical Secretariat with the observations of the Plenary Meeting, and the request that it be given further study preliminary to priority consideration at the next COPANT/C 6 Seminar or meeting.

Observations: 1. ASA mentioned the numerous technical and editorial revisions considered necessary in this listing, its feeling on listing other than generic terms, and the impossibility of preparing a complete and current document listing all the trade names of man-made fibers; 2. ABNT mentioned that the numbering of sub-sections in the Recommendation would preclude its expansion; 3. IRAM agreed in principle with ASA but emphasized the essential need to develop this Scheme into a COPANT Standard, and proposed that it be returned to the Technical Secretariat with the observations of the Delegation; 4. COVENIN recommended that priority on the next agenda be assigned to this and the other important Schemes on terms and definitions.

ASA proposed "that Technical Committee 6 of COPANT establish a subcommittee on terminology and definitions whose responsibility will be the development of terms and definitions related to textiles". The Field Director expressed regret that he could not respond to this proposal and explained that this is a matter for COPANT.

5/19

COPANT 6:2-001, UNEVENNESS OF TEXTILE STRANDS

This method, based on ASTM D 1425-60T, was returned as Scheme 1 to the Technical Secretariat for further study and modification in line with the observations made at the Plenary Meetings.

The first draft of this Scheme applied to several types of apparatus and was not, as stated by ABNT, confined to the Uster type apparatus as decided upon at the previous Seminars in Lima, Peru. Consequently, upon approval of the ABNT proposal to so limit its scope and applications, it was redrafted by an appointed Technical Committee.

Dates
Discussed

Recommendations: Modifications of; Action on

COPANT 6:2-001 (Continued)

The resultant revision was not, however, acceptable: it was said to be a dictionary; to be a commercial method rather than a technical standard; and to require further study by the Technical Secretariat of the instruments based on the Uster evenness tester.

5/19,21

COPANT 6-045, TEXTILES - METHOD OF CONDITIONING FOR TEST

This method, based on ASTM D 1776-65T, was approved as Draft 1.

The major modification in this Recommendation was the transfer to Chapter 2 from COPANT 6-003 of the approved definitions relating to conditioning. (See comments on COPANT 6-003.)

Additional, though minor, changes were: simplification of the title; expansion of the section on apparatus; and the addition of supplementary information on the conditioning procedure.

5/19,21

COPANT 6-046, SAMPLING OF YARNS

This method, based on ASTM D 2258-64T, was approved as Draft 1.

Modifications in this Recommendation were chiefly editorial, the greatest change of this kind being the transfer from the "Scope" to "Observations" of three paragraphs on uses and significance of the method.

There was, however, considerable interesting discussion of the definitions of "yarn" and "yarn package", the latter in its present form excluding yarn on beams. Although acceptable, further study of the definition of "yarn package" was contemplated.

5/20,21

COPANT 6-048, LIST OF COMMERCIAL MOISTURE REGAINS FOR TEXTILE FIBERS

This Recommendation, based on ASTM D 1909-65, was approved as Draft 1.

Interesting and informative discussions of this Recommendation concerned chiefly: the scope of the

<u>Dates Discussed</u>	<u>Recommendations: Modifications of; Action on</u>
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COPANT 6-048 (Continued)

document; names of several of the fibers; the moisture regain values for cotton and wool, the differences in these values, and their status in trade usage.

The modifications incorporated in the approved document: 1. limit its coverage to the moisture regain values of "some" textile fibers and yarns; 2. substitute "polytetrafluoroethylene" for "fluoro-carbons", "nylon" for "nylon polyamides", and "spandex" for "spandexes"; and 3. omit the listing of "wool" and its note (one value to be inserted when later available); and 4. omit the notes on cotton, flax, and jute.

3.7 Related Activities

<u>Date</u>	
	3.7.1 Round Table Discussions

5/18	<u>Commercial Classification of Wool Types:</u>
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This discussion was initiated by UNIT who presented a proposal on the characterization (not classification) of wool based on the average fineness and length of wool fibers, these being the parameters which influence commercial values, technical behavior, and the end use of wool. It was pointed out: 1. that wool could then be precisely defined on the basis of objective parameters; 2. that such a characterization need not exclude other properties important to commerce, or the use of classification tables when agreed upon, but 3. that such a characterization would make available a COPANT reference for use in commerce.

An exchange of ideas (by INANTIC, ABNT, DGN, UNIT, and ASA) followed. Although general agreement with the proposal was expressed, it was thought incomplete and to require expansion to include such other characteristics as strength, diameter, crimp, color, moisture content, etc. Classifications based on wool grades, and the possible effect of a new classification on those presently used in commerce, were also discussed. The consensus was that the proposed characterization, if satisfactory, could possibly result in changes in the classification of wool.

Now, it was agreed, is a good time to try for more complete requirements using other characteristics such as yield in clean wool, content of vegetable matter, and perhaps those properties affected by geographical origin. It was observed that there are no standards to characterize the length of grease wool, clean wool, and tops, and that a technical characterization of these is needed.

IRAM, stating that the basic objective of COPANT is to develop test methods, and that these should be based on the results of study and experimentation, proposed: that the Technical Secretariat SC 6:3 prepare three COPANT documents, for grease wool, clean wool, and tops, respectively; that each document be based on parameters such as fineness (determined by microscope or air flow) length, wool yield, content of vegetable substances, and other parameters considered necessary for classification.

This proposal and another, to base determinations of the length of fiber in grease wool on ASTM D 1234, were approved unanimously, thereby paving the way for documentation of the technical characterization of wool which may be used in commercial transactions.

5/18 Working Program of COPANT SC 6:3 on Wool for the Coming Year:

This discussion constituted an interchange of ideas related to areas in which the Wool Subcommittee should concentrate its activities during the next year. Suggested for consideration were:

1. Staple length of wool in the grease (ASTM).
2. Tensile strength (ASTM, with information provided on the results of the interlaboratory study, in progress, on the use of the Pressley tester and the Pressley jaws on the Instron machine).
3. Acid content of wool (not, however, considered important for present needs) (IWTO).
4. Commercial moisture regain (considered important for current use).
5. Acid solubility (method contemplated for future consideration) (ISO; IWTO).

Date SC 6:3 Working program, 2,
continued

6. Rapid method for alcohol extractibles (this thought by many to give lower values, and so not favored).
7. Definitions for wool by-products, wastes, etc. (not much interest expressed).
8. Electronic means for determining fiber length (agreement reached to delay this study until more is known of an ASTM method now being developed).
9. Wool solubility in urea bisulfite solution.

Decided upon as meriting immediate study were the subjects identified as items 1, 2, 4, and 9, these being suggested also as subjects for Schemes for the agenda of the next meeting or Seminar of COPANT/C 6 (See 3.8.)

5/18 Commercial Moisture Regains of Wool:

The objective of this discussion was to express opinions on the commercial moisture regains for wool. At its start, UNIT presented a Scheme-1 proposal on "conventional commercial moisture in wool" prepared in March 1966. This Scheme recommended a single conventional value of 15 percent for all forms of wool and omitted any consideration of moisture "regain".

In presenting it UNIT stated that, because of previous discussions (on COPANT 6:3-012) which had resolved differences of opinions, this proposal was being withdrawn and sent to the Wool Subcommittee with the request that all available information be solicited and studied with the object of unifying the values of wool in all its forms.

IRAM responded, stating that this subject was referred to the Wool Subcommittee in 1964, and has been again by this Seminar in earlier discussions; that previous studies had not resolved this problem, chiefly because no information on the commercial aspects of it had been received from the FLI; that the values of the FLI are used in Argentina for wool exports, and used generally in world commerce in wool.

Much discussion (by DGN, ABNT, INANTIC, INDITECNOR, and UNIT) ensued on: 1. the adoption of the values of the FLI; 2. the establishment by COPANT SC 6:3 of a single technical value and procedure for regain; 3. the participation

Date
5/18

Moisture regains (Continued)

and contributions of COPANT member countries to the FLI; and 4. whether or not the information at hand is sufficient for a major discussion at this time.

In consequence of these expressions, it was resolved: 1. that adoption of the FLI values would be meaningless; 2. that a COPANT Standard developed on the basis of sound technical study would constitute a valuable contribution to commercial interests and also to the FLI; 3. that COPANT SC 6:3 study the values of commercial moisture regain of wool in all its forms, and then prepare a COPANT document unifying these values and establishing a technical procedure.

5/12 3.7.2 Visit to Industria Lanera del Uruguay S.S. (ILDU)

Sincere appreciation is expressed to these gracious gentlemen who provided the following information, and conducted our tour of the excellent facilities of ILDU:

Sr. Diógenes R. Ordoqui, Industrial Manager
Sr. Luis A. Capandeguy, Head of Service Department
Sr. Héctor Camiou, Quality Control Supervisor
Sr. Eddy Gerla, Labor Cost Control Supervisor

This large modern mill, established in 1932 with Uruguayan capital, employs 700 mill workers, 130 technicians and office employees, and processes 2,500,000 kilos of virgin wool per year. ILDU is vertically organized and sells in local and foreign markets. Production of all-wool finished products is divided approximately into thirds amongst: men's and women's worsted suitings; hand knitting wools; and machine knitting yarns. Exports represent 40 per cent of the total volume of all sales (tops, machine knitting yarns, and worsted suitings), one of the most important foreign markets being the U.S. In this connection, it was interesting to learn that there are no legal requirements for labeling except for wool exports which must comply with the requirements of the import country.

3.8 Program Proposed for 1967 Meeting of COPANT/6

As a result of suggestions made during the course of the technical meetings, round table discussions on wool, and a final special discussion on the areas in which COPANT Standards are needed by industry and commerce in Latin America, 39 subjects were proposed for the bases of Recommendations to be developed for consideration at the next meeting or Seminar of COPANT/C 6.

With respect to the subjects on canvas, it is important to report the proposal made by ABNT, "that Technical Committee 6 of COPANT establish a subcommittee whose responsibility it will be to develop standards related to canvas goods and products". These, it was stated, would represent valuable contributions to the canvas industries of Latin America.

This proposal, like that of ASA for the creation of a subcommittee on terminology and definitions, is a subject for consideration by COPANT. (See comments on COPANT 6-006.)

Following is a listing of subjects proposed for the next meeting:

TERMINOLOGY AND DEFINITIONS

1. Fibers and textile products. (COPANT 6-001, on which no action was taken at the 1966 Seminar.)
2. Conditioning of textile materials. (COPANT 6-003, on which no action was taken at the 1966 Seminar.)
3. Tests of textile materials. (COPANT 6-004, on which no action was taken at the 1966 Seminar.)
4. Lists of natural and synthetic fibers. (COPANT 6-006, on which no action was taken at the 1966 Seminar.)
5. Knitted fabrics.

YARNS

6. Filament yarn count - short length method.

YARNS AND FABRICS

7. Evaluation of wettability.
8. Evaluation of wetting agents.
9. Evaluation of rewetting agents.
10. Evaluation of wetting agents for mercerization.

FABRICS

11. Canvas, specifications for.
12. Chlorine retention, damage by - multiple sample method.
13. Chlorine retention, damage by - single sample method.
14. Dimensional changes (shrinkage), felting and relaxation of woven and knitted wool textiles.
15. Fabrics - method to determine thickness.
16. Fabrics - method to determine air permeability.
17. Fabrics, wash and wear - appearance of seams after home laundering.
18. Fabrics, wash and wear - appearance of creases after home laundering.
19. Fabrics, wrinkle recovery - wrinkle recovery tester method.
20. Felt - construction and methods of test.
21. Fire resistance of industrial textiles.
22. Flammability of clothing textiles.
23. Knitted fabrics - construction and methods of test.
24. Seams and stitches - construction and methods of test.
25. Water repellency - spray test. [A Scheme for this test, COPANT 6-047, was developed during the 1964 Seminar: "Cloths - Method of Test for Determining Water Repellence (Artificial Rain Method)".]
26. Water repellency - static absorption test.
27. Water repellency - tumble jar dynamic absorption test.
28. Water resistance - hydrostatic pressure test. (A Scheme for this test, COPANT 6-046, was developed during the 1964 Seminar: "Cloths - Method of Test for Determining Water Resistance by the Hydrostatic Pressure Method".)
29. Water resistance - impact penetration test.
30. Water resistance - rain test.

WOOL

31. Length of wool in the grease.
32. Wool solubility in urea bisulfite solution.
33. Breaking strength of wool fiber bundles.
34. Commercial moisture regain.

COLORFASTNESS

35. Xenon arc lamp, water cooled, alternate light and darkness.
36. Xenon arc lamp, water cooled, continuous light.
37. Weather resistance - exposure to natural sunlight and weather (with wetting).
38. Weather resistance - exposure to natural sunlight and weather (without wetting).

OTHER

39. Sampling plan - general.

3.9 Closing of the Seminar

The third OAS-COPANT International Seminar on Textile Products was concluded without "fan-fare" at the end of the final technical meeting on May 21, this because of the pressure of work which precluded time for a more formal closing.

The importance and accomplishments of the Seminar were summarized by the OAS Field Director, Prof. Cabrerizo, who expressed satisfaction with its success and the desire that each delegate transmit to his national standards organization the importance of the Seminar meetings in the OAS Regional Standardization Program so that the resultant documents would be discussed at a national level and thus represent the opinion of that country in the technical standardization field.

Prof. Cabrerizo expressed the appreciation of the Delegation to Dr. Molfino for the hospitality and excellent facilities of UNIT and the friendliness and hard work of its staff, and extended thanks, also, to the Director and Secretaries of the Technical meetings, and to the delegates for their interest, cooperation, and labors.

Following brief and gracious responses by Dr. Molfino and Señor Camiou, the Seminar was declared ended.

3.10 Saludos!

With warmth and sincerity, I offer a toast to the ever-increasing success of this important standardizing activity, and to all of those who participated directly or indirectly in its accomplishments!

A toast, as well, to all the friendships made along its path! May the relationships between our American countries be as true and enduring!

3.11 Recommendations

1. That because the continuation of this standardization program is so essential to the economic integration of the American Continent, and because OAS financial support may not be forever forthcoming, efforts be expended to make this activity self sustaining.

2. That, upon knowledge of the subjects proposed for the next agenda of COPANT/C 6, and specifically upon receipt of that agenda, all technical papers and standards in the areas indicated be sent at once to the Technical Secretariat for reference in the development of Schemes.
3. That both Seminar delegates and the national organizations representing the member countries of COPANT make every effort to conform to the deadline-dates set by the Technical Secretariat.
4. That alternate or substitute proposals submitted for consideration be submitted in writing to the Technical Secretariat or the Technical Subcommittee concerned. The date of transmittal should be well in advance of the Seminar and, when applicable, when expressing views in opposition to a circulated draft.
5. That all delegates be technically competent, carefully chosen, and specifically instructed prior to attendance at a Seminar.
6. That provision be made for a full-time official Spanish-English interpreter at COPANT/C 6 Seminars to permit complete and technical translations of discussions and actions so essential for maximum contributions from English-speaking delegates.

This recommendation is made, however, with full awareness that the official language of the Seminar is Spanish. For this reason, and to facilitate communication and further rapport between the Americas, it is suggested that English-speaking delegates make every effort to become familiar with conversational Spanish.

3.12 APPENDIX

3.12.1 COPANT STANDARDS ADOPTED BY THE COPANT COUNCIL IN 1964

Note: The designation of the COPANT Recommendation, prior to its approval as a COPANT Standard, is given in parentheses.

- R 40 (6-002), Terminology and Definitions Related to Fabric Defects.
- R 41 (6-009), Sampling of Cotton Fibers for Testing.
- R 42 (6-011), Tex System for the Designation of Linear Density.
- R 43 (6-012), Yarns - Method for the Determination of Twist.
- R 44 (6-013), Yarns, Determination of Number - Skein Method.
- R 45 (6-014), Method of Testing Colorfastness to Water.
- R 46 (6-016), Method of Testing Colorfastness to Daylight.
- R 47 (6-018), Accelerated Method of Testing Colorfastness to Domestic and Industrial Washing.
- R 48 (6-020), Gray Scale for Measuring Color Transfer.
- R 49 (6-021), Gray Scale for Measuring Change in Color.
- R 50 (6-022), Fabrics - Hand Method for the Determination of Length.
- R 51 (6-023), Fabrics - Method for Determining Width.
- R 52 (6-024), Fabrics - Method for Determining Weight of Pieces, Rolls, or Bolts.
- R 53 (6-025), Fabrics - Method for Determining Weight per Square Meter - Method of the Small Sample.
- R 54 (6-026), Determination of Tenacity and Elongation of Cotton Fibers by the Flat-Bundle Method.
- R 55 (6-027), Method of Test for Determining the Micronaire Value (Maturity-Fineness) of Cotton Fibers.
- R 56 (6-028), Method of Test for Determining the Length of Cotton Fibers by Means of the Fibrograph.

3.12.2 NOMENCLATURE OF THE DIFFERENT STAGES OF STUDY OF COPANT RECOMMENDATIONS

Scheme 1 Recommendation: Designates the work prepared by the Subcommittee. Successive copies made during its study are designated by the capital letters, A, B, C, etc.

Draft Proposal 1 Recommendation: Designates the work approved by the Subcommittee and submitted to the corresponding Committee for consideration. Successive copies made during its study are designated by the capital letters A, B, C, etc.

7 "Scheme 2", "Draft Proposal 2", and "Draft 2" designate revisions of the corresponding Recommendations.

Draft 1 Recommendation: Designates the work approved by the Committee and submitted to the General Secretariat for its further proposal to all COPANT members. Successive copies made during its study are designated by the capital letters A, B, C, etc.

COPANT Recommendation: Designates the work approved by all members of COPANT in accordance with the procedures established by COPANT Statutes.

3.12.3 AGENDA OF THE 1966 OAS-COPANT INTERNATIONAL SEMINAR ON TEXTILE PRODUCTS TO BE HELD IN MONTEVIDEO, URUGUAY FROM MAY 8 THROUGH MAY 21, 1966

Monday 9 Opening Session
(Morning)

Monday 9 COPANT Sc 6:1-001 Method of Test to Determine
(Afternoon) Colorfastness to Friction.

Tuesday 10 COPANT Sc 6:1-002 Method of Test to Determine
(Morning) Colorfastness to Heat

Tuesday 10 COPANT Sc 6:1-007 Method of Test to Determine
(Afternoon) Colorfastness to Treatment
with Dry Heat.

Wednesday 11 COPANT Sc 6:1-006 Method of Test to Determine
(Morning) Colorfastness to Pleating.

Wednesday 11 COPANT Sc 6:1-003 Method of Test to Determine
(Afternoon) Colorfastness to
Perspiration.

Thursday 12 COPANT Sc 6:1-004 Method of Test to Determine
(Morning) Colorfastness to Atmospheric
Nitrogen Oxides

Thursday 12 COPANT Sc 6:1-005 Method of Test to Determine
(Afternoon) Colorfastness to Atmospheric
Ozone.

Friday 13 COPANT Sc 6:1-008 Method of Test to Determine
(Morning) Colorfastness to
Carbonization: Wool

Friday 13 (Afternoon)	COPANT Sc 6:1-009	Method of Test to Determine Colorfastness to Fulling:Woolen Yarns and Fabrics.
Saturday 14 (Morning)	COPANT C 6-047	Method of Test for Dimensional Changes in Plain and Knitted Fabrics (Excluding Wool).
	COPANT C 6-049	Appearance of Fabrics in Articles after Domestic Laundering and Use.
Monday 16 (Morning)	COPANT Sc 6:3-003	Wool - Method of Test to Determine the Length of Fibers in Wool Tops by Means of a Manually Operated Comb Classifier (Schlumberger Type).
Monday 16 (Afternoon)	COPANT Sc 6:3-007	Method of Test to Determine Fiber Length in Top by Means of a Manual Comb Sorter.
Tuesday 17 (Morning)	COPANT Sc 6;3-009	Wool - Method of Test for the Determination of the Average Diameter (Fineness) of Fibers by Air Flow Apparatus.
Tuesday 17 (Afternoon)	COPANT Sc 6:3-010	Wool - Method of Test to Determine the pH Value of Aqueous Extract.
Wednesday 18 (Morning)	COPANT Sc 6:3-011	Wool - Method of Test to Determine Solubility in Alkali.
Wednesday 18 (Afternoon)	COPANT Sc 6:3-012	Wool - Method of Test to Determine Moisture Regain by Oven Drying.
Thursday 19 (Morning)	COPANT Sc 6:3-013	Wool - Method of Test to Determine the Content of Solvent Extractable Matter in Dried Wool.

Thursday 19 (Afternoon)	COPANT Sc 6:4-001	Specifications for Types of Alpaca Wool in Accordance with Fineness of Fiber.
	Round Table	Agreements on Technical Aspects Relating to a Possible Establishment of Bases for the Adoption of a Unified Criterion for Commercial Classification of Wool Types.
	Round Table	Values to be Adopted for Commercial Moisture Regain of Wool.
Friday 20 (Morning)	COPANT C 6-001	Terminology and Definitions Relating to Fibers and Textile Products.
	COPANT C 6-003	Terminology and Definitions Relating to Conditioning of Textile Materials.
	COPANT C 6-004	Definitions Relating to Tests of Textile Materials.
Friday 20 (Afternoon)	COPANT C 6-005	Classification of Textile Fibers.
	COPANT C 6-006	List of Natural and Synthetic Fibers.
	COPANT Sc 6:2-001	Yarns - Irregularity of Textile Yarns, Rovings and Slivers.
Saturday 21	COPANT C 6-045	Method of Conditioning Textiles and Textile Products for Testing
	COPANT C 6-046	Sampling of Yarn.
	COPANT C 6-048	List of Values of Commercial Moisture Regains for Textile Fibers.

3.12.4 DELEGATIONS ATTENDING THE 1966 OAS-COPANT
INTERNATIONAL SEMINAR ON TEXTILE PRODUCTS;
OFFICERS OF TECHNICAL MEETINGS

OFFICERS OF TECHNICAL MEETINGS

Field Director, OAS Project 207.01

Ing. Juan V. Cabrerizo
Unión Panamericana and Avenida República de Chile 698
Washington, D. C. 20006 Lima, Perú
U.S.A.

Director of the Technical Meetings

Q. I. Héctor Camiou
Jefe de Laboratorio de Control de Calidad
Industria Lanera del Uruguay (ILDU)
José de Béjar 2600
Montevideo, Uruguay

Secretary of the Technical Meetings

Q. I. Heriberto Márquez
Prof. Adjunto de Análisis Técnico
Facultad de Química de Montevideo
Av. Gral Flores 2124
Montevideo, Uruguay

DELEGATIONS

I R A M (Argentina)

Dr. Pedro H. Canova
Jefe División Textiles de Instituto Argentino de
Racionalización de Materiales
Chile 1192
Buenos Aires, Argentina

Dr. Héctor A. Bado
Jefe Laboratorio Central, Cofia S.A.
Buenos Aires, Argentina

Sr. Miguel Faigenbom
Jefe de Laboratorio Textil, Grafa S. A.
Albarellos 2565
Buenos Aires, Argentina

I R A M (Argentina) - continued

Sr. Tomislav Kopsic
Laboratorio de Lana
Universidad Nacional del Sur
Av. Allem 1253
Bahía Blanca, Argentina

A B N T (Brasil)

Sr. João Fernando Borges Fortes
Jefe de Control de Calidad de São Paulo Alpargatas S. A.
Av. Lima 1130
São Paulo, Brasil

I C O N T E C (Colombia)

Sr. Hugo Palacios Haeusler
Presidente Asistente Técnico
Distribuidora Algodón Nacional Diagonal
Edificio Gran Colombia
Medellín, Colombia

I N D I T E C N O R (Chile)

Sr. Luis Bravo Rudolphy
Jefe Laboratorio Textil
Universidad Técnica del Estado
Av. Ecuador 3659
Santiago, Chile

A S A (United States of America)

Mr. Charles A. Sylvester
Assistant Industry Manager, Textiles
E. I. du Pont de Nemours and Co. Inc.
Organic Chemicals Dept.
8516 Nemours Building
Wilmington, Delaware 19898
U.S.A.

Miss Josephine M. Blandford
Technologist (Textiles)
National Bureau of Standards
Washington, D. C. 20234
U.S.A.

A S A (United States of America) - continued

Mr. Claude S. Clutz
Manager, Evaluation Laboratory
Celanese Fibers Marketing Co.
Box 1414, Charlotte, N. Carolina 28200
U.S.A.

Dr. Roland E. Derby, Jr.
President, Derby Company
49 Blanchard Street
Lawrence, Massachusetts 02543
U.S.A.

Dr. Enrique Goyret
Technical Service Representative
Celanese Corporation of America
Box 1414, Charlotte, N. Carolina 28200
U.S.A.

Mrs. Mary E. Hourihan
Leader, Wool Investigations
U. S. Department of Agriculture
Animal Husbandry Division, Sheep Branch
Agricultural Research Center
Beltsville, Maryland 20251
U.S.A.

Dr. E. W. Lothrop, Jr.
Group Head, American Viscose Div., FMC Corp.
Marcus Hook, Pennsylvania 19061
U.S.A.

Mr. William R. Martin, Jr.
Technical Director,
American Association of Textile Chemists
and Colorists
P. O. Box 886
Durham, N. Carolina 27702
U.S.A.

Mr. Elroy M. Pohle
Officer in Charge, Wool Standardization
U. S. Department of Agriculture
Bldg. 81 DFC,
Denver, Colorado
U.S.A.

A S A (United States of America) - continued

Miss Genevieve M. Smith
Manager, Textile Laboratory
Sears, Roebuck and Co.
360 West 31st Street
New York, N. Y. 10001
U.S.A.

Miss Rose V. White
Home Economist
Secretary, Consumer Goods Standards Board
American Standard Association, Inc.
10 East 40th Street
New York, N. Y. 10016
U.S.A.

D G N (México)

Sr. Jorge César Mattig Salazar
Jefe de la Sección Textil de la Secretaría de
Industria y Comercio
Departamento de Normalización
Ay. Cuauhtémoc 80
México D. F., México

Sr. Juan Pedro de Larranaga
Jefe del Grupo Textile de Programación Industrial
Nacional Financiera S. A.
Venustiano Carranza 25
México 1 D. F., México

I N T N (Paraguay)

Sr. Atilio Salomón
Director Gerente de Joaquín Grau S. A.
Guillermo Arias y de las Llanas
Asunción, Paraguay

I N A N T I C (Perú)

Ing. Benjamín Jarufe Zedán
Sub-Gerente Textil Sabal (Perú) S. A.
Carretera Central Km 7
Lima, Perú

I N A N T I C (Perú) - continued

Sr. Juan Villarroel León
Director de Programa
Programa de Industria Lana y Alpaca
Facultad de Zootecnia
Universidad Agraria
La Molina
Lima, Perú

Ing. Walter Zimmerman
Industrias Textiles Arequipa S. A.
Quilca 524
Lima, Perú

U N I T (Uruguay)

Ing. Alfredo Benia Pérez
Secretario Técnico
Instituto Uruguayo de Normas Técnicas
Av. Agraciada 1464, piso 9
Montevideo, Uruguay

Sr. Juan Rafael Larrosa
Facultad de Veterinaria
Alberto Lasplaces 1550
Montevideo, Uruguay

Srta. Margarita Moreno
Depto. de Textiles del Instituto de Tecnología y
Química de la Facultad de Ingeniería de Montevideo
Herrera y Reissig 565
Montevideo, Uruguay

Q. I. Sergio Varela
Campomar S. A.
Juan Lacaze
Colonia, Uruguay

C O V E N I N (Venezuela)

Dr. Jorge Rutenberg Koblenz
Gerente de Belgica C. A.
Marron ADR. Paul Edif. Coronado
Caracas, Venezuela

4. DISCUSSIONS: PAN-AMERICAN STANDARDIZATION
ACTIVITIES ON TEXTILES IN
SOUTH AMERICA

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A Word of Thanks.

To all those whom I visited in South America, I extend my sincere appreciation for the time and information so freely given, for their interest, and their most cordial hospitality. Their goodness to me will long be remembered.

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4.1 BUENOS AIRES, ARGENTINA

Instituto Argentino de Racionalización de Materials (IRAM)

and (at same facility)

Comisión Panamericana de Normas Técnicas (COPANT)

Sra. B. G. de Ciaburri, Executive Director of IRAM and
Provisional Secretary of COPANT

Dr. Pedro Héctor Canova, Chief, Textiles Section (IRAM)

A handsome building is headquarters for IRAM, the national standards body of Argentina, and the General Secretariat of COPANT. Here all work is concerned with the development of national and international standards related in the broad sense, as Sra. de Ciaburri so concisely said, "to the use and development of all the Americas."

The excellent facilities are those used jointly by IRAM and COPANT: a technical staff of 40 persons; a large and splendid technical library maintaining complete sets of international standards, including those of the U. S. (ASTM, AATCC, ASA, and Federal Government); offices for the various areas of standardization activities; numerous conference rooms; printing plant (for the printing of IRAM and COPANT publications and papers); and mailing room. Laboratories are not provided as testing is performed in those of the member organizations.

Instituto Nacional Tecnología Agropecuaria (INTA)

Ing. Agr. Justo Lopez, Jefe de Laboratorios de la
Junta Nacional del Algodón

Ing. Julio E. Caramelli, Chief, Cotton Technology
Laboratory

Dra. Elena Ruth Junken, Chemist

The Cotton Technology Laboratories are equipped with laboratory-scale blending and carding machines as well as the instruments required for testing: Fibrograph, Stelometer, Pressley tester, and Micronaire. Although but a small branch of INTA, they perform important work in the study of Argentine cottons, blends of cottons, evaluation of their physical properties; and the classification of cotton.

4.2 MONTEVIDEO, URUGUAY

Instituto Uruguayo de Normas Técnicas (UNIT)

Ing. Juan P. Molfino, Director

UNIT, the national standards body of Uruguay, has a suite of offices, library, and meeting rooms for the administrative and secretarial work performed, but no laboratory facilities. Testing and development work is accomplished in the laboratories of its organization members.

As our gracious host at the 1966 OAS-COPANT International Seminar, UNIT provided excellent and additional facilities elsewhere in the building, and obtained a supplementary office staff which kept pace with the magnitude of Spanish-English paper work required by the actions of the Seminar.

United States Embassy

Mr. Richard H. Morefield, Second Secretary.

Mr. Morefield was genuinely interested in the objectives, programs, and accomplishments of the OAS-COPANT Seminars, and offered to assist the U. S. Delegation in any manner possible. The facilities of the Embassy, made available to us by Mr. Morefield during the progress of the Seminar, were sincerely appreciated.

4.3 PÔRTO ALEGRE, BRASIL

Instituto Tecnológico de Rio Grande do Sul (ITERS)

Dr. Federico Ponté Filho, Chief, Organic Section
Dr. Arnaldo Sarrone, Chief, Ceraminc Materials Section

Although the present facilities are inadequate, new facilities are under construction and, when complete, will occupy an 8-block area.

At present ITERS is supported chiefly by contract fees from industry, but desires support of the State Government so that additional and improved equipment and a full-time research staff may be obtained. The staff at present consists of about 30 technicians many of whom, because of the salaries paid, also teach at the University on which site ITERS is located.

The functions of ITERS are: 1.) development of national economic products for domestic use and export; 2.) analysis of industrial products; 3.) quality control analysis; and 4.) consultative services to industry.

ITERS facilities include a technical library, pilot paper mill, distillation column, microscopy laboratory, machine shop, and laboratory facilities in the various areas of interest: woods, gums, oils, grease, sugars, coloring materials, ceramics, fertilizers, minerals, paper, textiles (to a limited degree), paints, varnishes, rice, bananas, and meats.

The work in each of these areas is of immense importance to industry and is directly related to the economy of Rio Grande do Sul, e.g., the biological study of canned foods; firing properties of ceramics; extraction and refinement of oil from beans; freeze-drying of meats; and drying of rice and bananas.

Federação das Cooperativas de las Fecolan

Sr. Brasil Lago, President
Prof. Manoel Almeida

The official establishment of Government standards, and the need for control of sheep diseases (skin disease, intestinal worms, and foot rot), led to the organization of the Cooperativas in 1945.

The success of the Cooperativas is evidenced by:
1.) the effectiveness of disease control through the use of the compound, (called in Pôrto Alegre) "Fentatiazina", purchase in the U. S., and expensive; 2.) an increase in sheep production from 6,000,000 in 1944 to 12,000,000 in 1965, the reasons being improvements in technical and medical technology, development of excellent pasturage, and the practice by individual (not Government) producers of artificial insemination which accounts for 80 percent of the breeding. The purpose of this practice is to achieve increased quality (not quantity) of production, now 300,000 lambs per year in Rio Grande do Sul. The profitability of this enterprise has effected a 6.8 percent net profit, now shrinking because of the import of textile materials and the cost of medicines.

The Cooperativas' wool production for 1965 was:

Number of Cooperativas.....	18
Number of members*.....	12,179
Production (tons).....	25,558
Export (kilos).....	6,170,700

*39 percent of the members produce less than 22 kilos.

About 22,000,000 tons of wool are now exported by Brasil to some 18 countries including the U.S., Canada, Bolivia, Chile, Central America, and Perú.

The impact of man-made fibers is felt as competition to wool although the desire and demand for wool will continue and not decrease in the domestic market. The price of wool is, however, affected by the marketing of man-made fibers.

Federação das Cooperativas de las Fecolan - continued

Concern was expressed by the Federação in the U. S. wool subsidies (20 cents per pound, clean basis), and interest expressed in the work of Dr. Harold P. Lundgren (U. S. Department of Agriculture, Western Regional Research Laboratories) on the improvement of wool by treatment with resins.

United States Embassy

Mr. Thomas J. Duffield, Consul
Mr. H. A. Kirchhof, Economic Analyst

The wool industry in Rio Grande do Sul, about 11,000,000 sheep, provides about 90 percent of the total Brazilian production, of which 10,000 metric tons of carpet wool are exported, chiefly to Europe.

It was learned that there is a large woolen mill (Japanese interests) located outside Pôrto Alegre which manufactures ready-made wool suits for export, has good equipment, but needs more modern machinery. Another large woolen plant, vertically-organized, is located in the interior.

Although there is apprehension of the coming competition from man-made fibers, the feeling at present is that "wool is wool" and so will always be in demand.

4.4 SÃO PAULO, BRASIL

São Paulo Alpargatas S. A.

Mr. James Baines, Plant Director
Sr. Ghidas Draugelis, Manager, Production Department
Sr. João F. Borges Fortes, Chief, Quality Control

This tremendous and excellent cotton mill is vertically organized, covering all phases of production from raw material to finished products: yarns, industrial threads, canvas, denims, tarpaulins, work pants, jeans, and bags for wool.

The mill and laboratory equipment for production and quality control is excellent and includes that of Brazilian, United States, English, and European manufacturers. Legal restrictions on the import of machinery present difficulties in obtaining new equipment from foreign manufacturers. Too, because machine parts are hard to obtain, these are custom-made in the plant's machine shops.

Quality control at Alpargatas embraces all plant operations and is organized into five areas: standards and physical laboratories (the standards used include those of ABNT, ASTM, and COPANT); samples and sampling; waste control; and weaving and procedural manuals.

The Quality Control Laboratories and offices maintain continued checks on all plant operations as well as complete records and data (with samples) on all products, many of the forms and specifications being especially designed to meet particular applications and end uses. The conditioned laboratories are excellently equipped for analysis, testing, and operational control.

The Chief of these Laboratories works with ABNT in the development of Brazilian Standards, with the Brazilian Defense Department on standards and specifications, and participates actively in the development of COPANT Standards for textiles.

It is interesting to know that, since the adoption of the Tex System as a COPANT Standard for the designation of linear density (R 40, 1964) Alpargatas has, through its Quality Control Laboratories, converted all operations and systems to Tex.

Particular interest was expressed by Mr. Baines in the success of the OAS-COPANT Seminar just completed, the COPANT Standards resulting from the work of this and the previous Seminars, and of the proposals for implementing the future program of COPANT/C 6.

Expressed also was the desire and need for U. S. capital to construct man-made fiber plants in South America, the reasons being: the present scarcity of such plants which are widely scattered in area; the expense of importing man-made fibers and yarns; and the increased production, competition, and reduced costs which could be expected to result and thereby contribute to the economic growth of South America.

Sindicato da Indústria de Fiação e Tecelagem em Geral

Sr. Joaquim Gomes Figueiredo Filho, President
Sr. Waldemar Guimaraes Moraes, Executive Secretary
Sr. Wilson Cano, Head, Economy Department, Sindicato;
Prof., Universidade de São Paulo
Sr. William R. Bátorffy, Coordinator, Sindicato Standards
Committee; Advisor, Associação Brasileira de Normas
Técnicas (ABNT)

It was an honor to have attended a meeting of the Sindicato. Its members - owners and officials in the spinning and weaving industries - display active leadership in the educational programs for mill technicians, operatives, and administrators, and in the expanding industrial economy of the State of São Paulo. They expressed to me great interest in the recent OAS-COPANT Seminar and in the nature and availability of COPANT Standards resulting from this and the previous Seminars.

It was learned, in conversations with Sr. Bátorffy and Sr. Wilson, that the State of São Paulo produces 50 percent of the textiles in Brasil, 80 percent of this total being produced in the greater São Paulo area. This production amounts to 1,000,000 metric tons of cotton, and about 400,000 metric tons of wool, and lesser amounts of jute, ramie, and synthetics.

Instituto de Pesquisas Tecnológicas (IPT)

Prof. Dr. Francisco João H. Maffei, Director
Eng. Massakuzu Ota, Chief, Rubber and Plastics Section
Eng. Ovidio Salada, Chief, Cellulose and Paper Laboratory
Eng. Benedicto de Oliveira, Chief, Wood Laboratory
Sr. Wolfgang Kolbe, Chief, Fiber Identification Laboratory

The IPT, located on the grounds of the Universidade de São Paulo, has Divisions of Chemical Engineering (with 13 sections), Civil Engineering, Mechanical Engineering, Wood and Chemistry. When the construction of two new buildings is completed, each division will have its own building. These will provide greatly improved facilities for research and testing and, hopefully, for additions to the staff and the purchase of new equipment should IPT receive increased finances.

The IPT Program includes research, development, and testing of national resources and industrial products: soils, minerals, ores, woods, fibers, rubber, paints, cement, and plastics. In addition, technical training courses are given in its various divisions in conjunction with the University curricula. A number of the IPT staff also teach at the University.

The IPT has laboratories in all areas of interest, an excellent technical library (which includes the NBS Journal of Research and ASTM Standards), and other facilities which include: pilot mills for paper and rubber; collections of Brazilian oils, woods, fibers, and ores; a boat model shop; and a 450-meter model basin.

The IPT, as do others in South America, has difficulty in obtaining new and advanced technical equipment, and experiences great trouble in obtaining in South America, or from U. S. manufacturers, service on U. S.-made laboratory apparatus. As a result, essential apparatus is sometimes inoperable for months.

Consulate of the United States of America

Mr. Richard C. Desmond, Chief, Economic Section
Miss Evelyn Rose Hessler, Principal Textiles Officer
Mr. I. Paul de Pedraza, Principal Commercial Officer

The Consulate reports for the country on many textiles and on automobiles: 50 percent of the textile production of Brasil is in the State of São Paulo; the manufacture of mechanical parts, chiefly, is concentrated in the São Paulo area where there are 25 manufacturers of car parts and cars.

Several educational programs in progress in the State of São Paulo contribute tremendously to the technical advancement of the textile industry and to the State and National economy:

The Programme Educational Textil, Projecto Cooperativo CNI/CIESP/USAID - Americana - SP, given on 34 dates from May 4 to July 29 of this year: this concentrated course covered all areas of mill production, laboratory work, administration and management, quality control, financing, marketing, cooperatives. It was coordinated by Erich F. A. Paul, American textile expert from New York, whose extraordinary work and leadership in revitalizing the local cotton industry of Americana, São Paulo, is a veritable Alliance for Progress success story.

The Curso de Engenharia, initiated in 1965 and extended from 3 to 5 years, is sponsored by the Textile Manufacturers Association of São Paulo (spinners and weavers), Catholic University of São Paulo, and the Foundation of Applied Sciences. The object of this program is to train technicians and administrative leaders for planning and developing the Brazilian textile industry.

The Inter-American Center, run by Brazilians for Brazilians and other Americans, is available to persons of all ages. Instructions are given in languages and a variety of other subjects, and seem somewhat related to those offered by U. S. night school and adult education programs.

4.5 RIO DE JANEIRO, BRASIL

Associação Brasileira de Normas Técnicas (ABNT)

Sr. João F. Borges Fortes, Secretary, ABNT National Commission on Textile Studies

Members of the Commission (in attendance at the meeting of the Commission, Sr. Borges presiding in the absence of Sr. Felix Von Ranke, President)

This meeting, attended by eight distinguished members of the Commission, was scheduled to hear Sr. Borges report, as the ABNT delegate, on the success of the recent OAS-COPANT Seminar; to meet Mrs. Mary E. Hourihan and myself in our capacities as ASA delegates to the Seminar; and to inform us of the organization and work of ABNT and its relation to COPANT.

The ABNT Commission on Textile Studies is responsible for the development of national (ABNT) standards and all work on COPANT Standards for textiles. Senhor Von Ranke is chairman of the ABNT and COPANT/C 6 Subcommittees on Glass and Asbestos, and Senhor Bátorffy, chairman of the ABNT Commission's Subcommittee on Man-Made Fibers.

ABNT makes drafts for all Recommendations proposed by Brasil for COPANT Standards, the development work being done by industry, and the cost being paid sometimes by OAS and sometimes by industry. This work is important to COPANT and also extends the ABNT standards and standardization program. Recommendations prepared by the ABNT Subcommittees are distributed for comment to all member groups, these totaling about 150 industries and institutes.

Associação Brasileiro de Normas Técnicas (ABNT) - continued

COPANT Recommendations sent to ABNT are similarly distributed for review, and the comments sent to ABNT which then holds a meeting (often of 100 members) for evaluation of the proposed Recommendations.

COPANT Recommendations which are approved as COPANT Standards are received by ABNT in Spanish, then translated into Portuguese, and then distributed by ABNT. All COPANT Standards are used by industry, each being a member of the ABNT National Commission.

The Chairman spoke of the need for developing standards and specifications for canvas which was expressed during the Seminar; that, as Brazilian delegate, he had proposed that COPANT/C 6 establish a Subcommittee on Canvas. The comment was made that all facilities for such a Subcommittee exist in the São Paulo area.

Other information obtained is of interest:

- 1.) Brasil is the largest manufacturer of canvas in the world, last year exporting 4,000,000 meters to the U. S.;
- 2.) Brasil manufactures 60 percent of the Latin-American production, some being produced by Argentina, Uruguay, and Peru;
- 3.) In Brasil 80 percent of the canvas is made in São Paulo where it is the largest textile product (Tarpaulins, truck covers, and coffee bags increase the demand.);
- 4.) The operation of a large ramie plant makes possible the widespread use of ramie which has replaced linen;
- 5.) There is required labeling for pure silk only, but not yet for other textiles, except those which are exported and so labeled in accordance with agreements between buyer and seller;
- 6.) An ABNT Warantee is being used for fire extinguishers;
- 7.) When, and as, COPANT Standards are available for textiles and other products, they can be specified by industry and commerce.

4.6 CARACAS, VENEZUELA

Fondo de Desarrollo Algodonero (FDA)

Ing. Agr. Louis L. Kersch, Manager
Dr. Jorge Rutenberg Koblenz, Advisor to: FDA; Ministry for
Agriculture; Comisión Venezolana de Normas Industriales
(COVENIN)

The FDA, evolving since 1961 from conferences and Fiber Technology Laboratories, was formally established in 1963. It is supported by Government and Industry, its membership consisting of representatives of the Ministry for Development, Ministry for Agriculture, the Cotton Growers, and Textile Manufacturers.

The activities of the FDA include:

1. Classification. The classification of Venezuelan cottons is accomplished by inspection and control in the cotton gins (by Fonda-trained specialists), and by physical analysis in the FDA's technical laboratories of the properties of color, length, strength, and fineness. The pre-classification at the gin determines compliance with COVENIN Standards; the final classification at FDA establishes comparisons with the Corporacion Venezolana de Fomento.

Although ASTM Cotton Appearance Standards are used, of additional value to the Venezuelan cotton industry are two new Appearance Standards established by FDA for cotton grown only in Venezuela, the Tanguis and Orinoco.

All cottons sold in Venezuela must bear the FDA seal of approval and also conform to legal requirements which permit the import of cotton only after the utilization of that percent of domestic cotton specified by law.

2. Production. Since 1963, and following studies of the whole cycle of cultivation, an effective training program was organized by FDA for training State inspectors in improved production: seeds and seeding, fertilization, disease and pest control, and other advanced techniques in cultivation.

This continuing program, through the training and work of inspectors, visits to producers, use of pilot plants, and dissemination of information, makes available to cotton producers better methods of cultivation, increased production, and reduced costs.

Activities of FDA, - continued

3. Investigation. The FDA is constantly preoccupied with the improvement of production and the quality of cotton, both of which are intimately related to the FDA's investigations, collaboration in the promotion and financing of studies, tests, etc., in the various cotton producing regions.

Developmental work of the Centro de Investigaciones Agronomicas since 1960 has positive results in the acclimation and creation of two new long cotton fibers, the Tanguis and Orinoco, for which the FDA established new appearance standards.

4. Direction and Administration. The FDA is directed and administered by the Directorio comprising 12 persons (and their alternates), 6 of whom are selected by the Ejecutivo Nacional, 3 from industry, and 3 from the cotton producers.

Actions on the suggestions, recommendations, and proposed projects of the Directorio is performed by the Gerente del Fondo, his technical and administrative staff.

Comision Venezolana de Normas Industriales (COVENIN)

Sr. Carlos P. Suner, Executive Secretary

COVENIN has at present 319 Standards covering a wide range of products and including the COPANT Standards on textiles resulting from the previous OAS-COPANT Seminars.

The facilities of COVENIN comprise offices, meeting rooms, a technical library, and a printing plant. Printed in the latter are "Normas Norven" which lists all standards and specifications adopted by COVENIN, and the periodical "Boletin de la Comision Venezolana de Normas Industriales" which summarizes activities in various areas of standardization, publishes information on technical subjects of national and international interest, and gives notice of current symposia and programs.

El Colegio de Ingenieros de Venezuela

Ing. Arnaldo Ron Pedrique, Presidente
Dr. Jorge Rutenberg Koblenz, FDA, COVENIN

El Colegio is important politically and economically, its members being persons of prominence in Government, scientific, and industrial professions and organizations. "Ingenieros" in the various professional fields must be approved by El Colegio before being licensed, hence the high caliber of the professional community.

The attractive building which houses El Colegio has every facility required for administration, study, and meetings, including a library, auditorium, and facilities for social functions.

It was a distinct pleasure to visit there on the occasion of the formal ceremonies and cocktail reception honoring the newly-elected Presidente, Ing. Arnaldo Ron Pedrique, members of the 1966-67 Junta Directiva and Tribunal Disciplinario.

