

# Comparative Comfort Study of Cow Urine Treated Organic and Non Organic Cotton Fabric

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**Abstract:** Comparative study of Comfort properties of organic and non organic cotton fabric by varying cow urine concentration used in medication purposes.

**Keywords:** Medication

## 1. Some Benefits of cow urine

Cow urine has amazing germicidal power to kill varieties of germs. All germ generated diseases are thus destroyed. According to Ayurveda the cause of all diseases is the imbalance in three faults (tri-dosas) i.e. mucous, bile and air. Cow urine balances the tri-dosas, thus diseases are cured. Cow urine corrects functioning of liver. So, liver makes healthy pure blood. It gives disease resistance power to the body.

Excessive use of any medicine leaves some residue in our body. This residue causes diseases. Cow urine destroys the poisonous effects of residues and makes body disease free. Cow urine being miraculous poison destroyer, destroys the disease caused by poison (Toxin). Extremely dangerous chemicals are purified by cow urine. Cow urine provides immunity power by increasing resistance power against diseases in human body. It is anti toxin. Cow urine is beneficial in all types of skin problems like skin allergies, rashes etc.

## 2. Materials and Methods

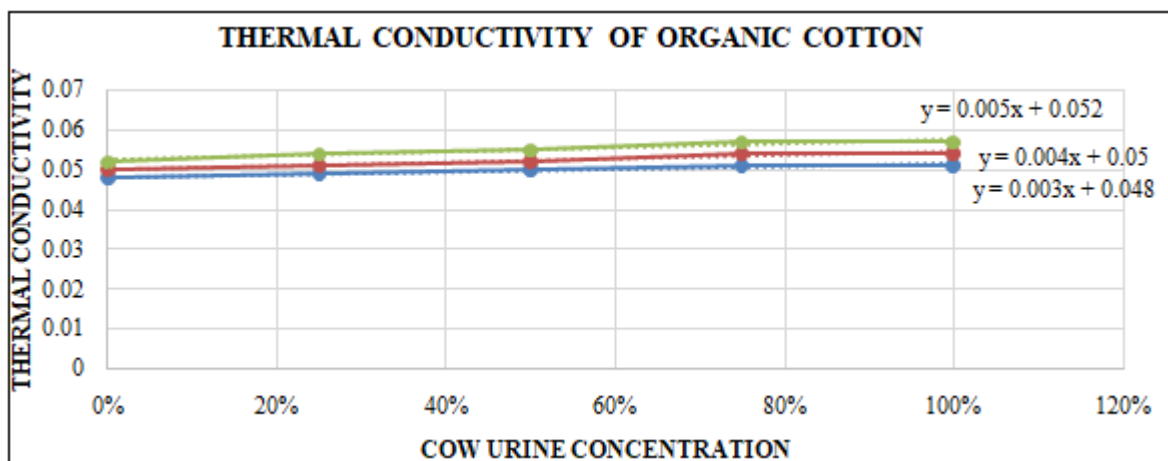
**Cotton fabric** – Plain weave 100% greige cotton fabric with count 2/30 cotton count, epi -56/2, ppi-54 and weight 271 grams per square meter was used for the project. Fabric is collected from Vardhaman Ltd. Bhudhani.

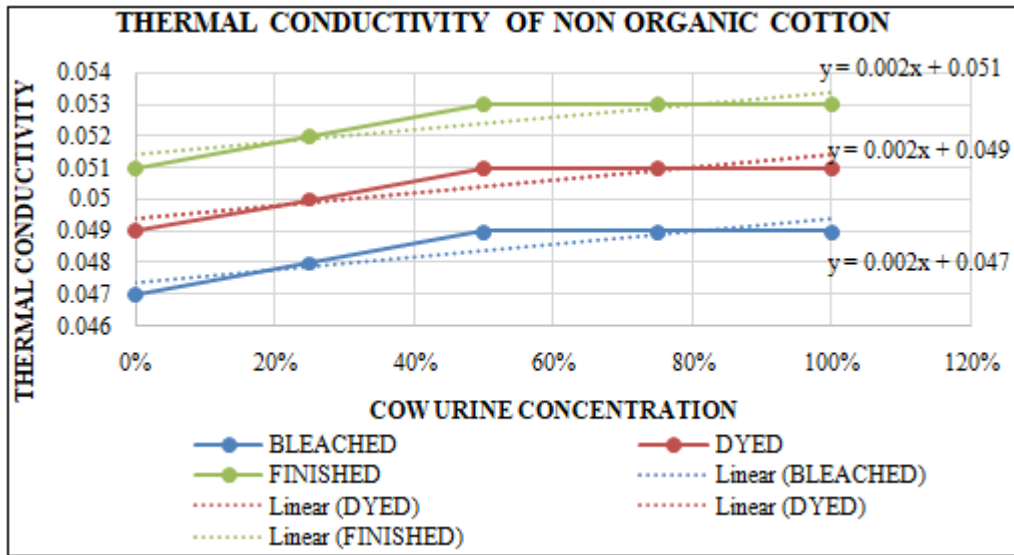
**Cow urine**-Fresh cow urine is collected early in the morning from local cow and filtered it. The fresh cow urine was used directly in the project work for fabric treatment with different concentrations

### Comfort Properties

**Thermal conductivity – ISO 220007-2**

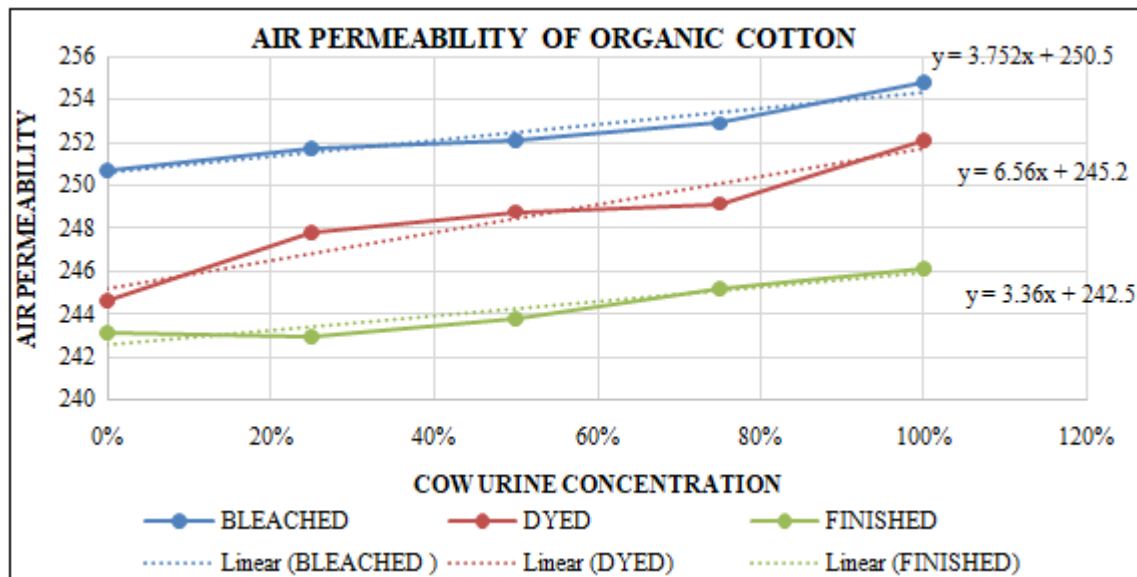
| Concentration | Organic Cotton Fabric |       |          | Non Organic Cotton Fabric |       |          |
|---------------|-----------------------|-------|----------|---------------------------|-------|----------|
|               | Bleached              | Dyed  | Finished | Bleached                  | Dyed  | Finished |
| 0%            | 0.048                 | 0.050 | 0.052    | 0.047                     | 0.049 | 0.051    |
| 25%           | 0.049                 | 0.051 | 0.054    | 0.048                     | 0.050 | 0.052    |
| 50%           | 0.050                 | 0.052 | 0.055    | 0.049                     | 0.051 | 0.053    |
| 75%           | 0.051                 | 0.054 | 0.057    | 0.049                     | 0.051 | 0.053    |
| 100%          | 0.051                 | 0.054 | 0.057    | 0.049                     | 0.051 | 0.053    |

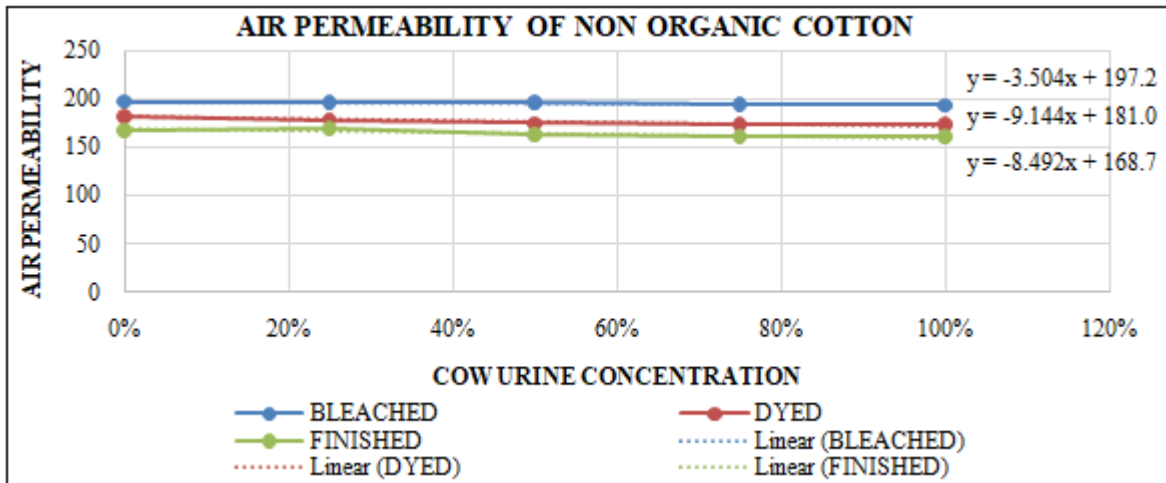




**Air Permeability**

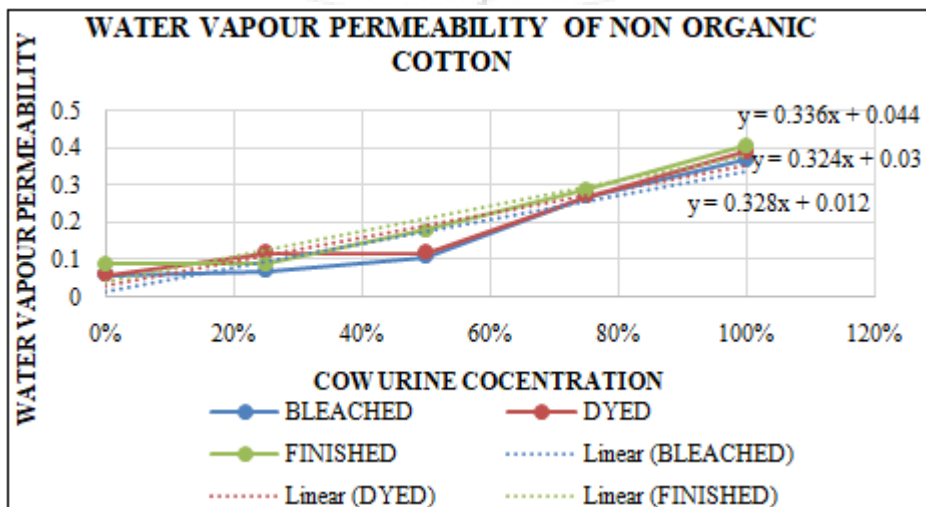
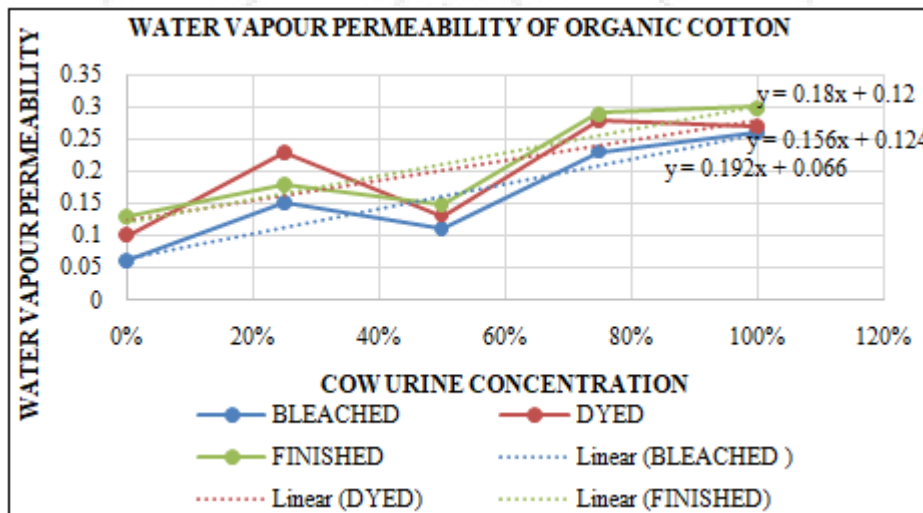
| Concentration | Organic Cotton Fabric |        |          | Non Organic Cotton Fabric |        |          |
|---------------|-----------------------|--------|----------|---------------------------|--------|----------|
|               | Bleached              | Dyed   | Finished | Bleached                  | Dyed   | Finished |
| 0%            | 250.7                 | 244.6  | 243.08   | 196.98                    | 182.23 | 167.8    |
| 25%           | 251.72                | 247.79 | 242.9    | 196.2                     | 178.5  | 169.13   |
| 50%           | 252.12                | 248.77 | 243.78   | 196.47                    | 174.9  | 162.9    |
| 75%           | 252.90                | 249.15 | 245.2    | 194.40                    | 173.7  | 161.7    |
| 100%          | 254.8                 | 252.12 | 246.13   | 193.5                     | 173.2  | 160.9    |





**Water vapour permeability**

| Concentration | Organic Cotton Fabric |      |               | Non Organic Cotton Fabric |      |               |
|---------------|-----------------------|------|---------------|---------------------------|------|---------------|
|               | Bleached              | Dyed | Concentration | Bleached                  | Dyed | Concentration |
| 0%            | 0.06                  | 0.10 | 0.13          | 0.06                      | 0.06 | 0.09          |
| 25%           | 0.15                  | 0.23 | 0.18          | 0.07                      | 0.12 | 0.09          |
| 50%           | 0.11                  | 0.13 | 0.15          | 0.11                      | 0.12 | 0.18          |
| 75%           | 0.23                  | 0.28 | 0.29          | 0.27                      | 0.27 | 0.29          |
| 100%          | 0.26                  | 0.27 | 0.30          | 0.37                      | 0.39 | 0.41          |



### 3. Bending Length

#### Warp wise Bending Length

| Concentration | Organic Cotton Fabric |      |          | Non Organic Cotton Fabric |      |          |
|---------------|-----------------------|------|----------|---------------------------|------|----------|
|               | Bleached              | Dyed | Finished | Bleached                  | Dyed | Finished |
| 0%            | 15.5                  | 16   | 16       | 13.5                      | 14   | 16.5     |
| 25%           | 16                    | 16.5 | 16       | 14.5                      | 16.5 | 17.5     |
| 50%           | 16.5                  | 17.5 | 19.5     | 16.5                      | 17.5 | 16       |
| 75%           | 17                    | 19   | 22.5     | 19                        | 19.5 | 19.5     |
| 100%          | 17.5                  | 22.5 | 23.5     | 22.5                      | 19.5 | 23.5     |

#### Weft wise Bending Length

| Concentration | Organic Cotton Fabric |      |          | Non Organic Cotton Fabric |      |          |
|---------------|-----------------------|------|----------|---------------------------|------|----------|
|               | Bleached              | Dyed | Finished | Bleached                  | Dyed | Finished |
| 0%            | 15.5                  | 16   | 16       | 9.5                       | 13.5 | 15       |
| 25%           | 16                    | 16.5 | 16       | 11.5                      | 16   | 16       |
| 50%           | 16                    | 16   | 17.5     | 15                        | 16.5 | 16       |
| 75%           | 16.5                  | 16.5 | 19.5     | 16.5                      | 17.5 | 17       |
| 100%          | 17                    | 19.5 | 19.5     | 17                        | 18   | 19.5     |

