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January 2020



Our Activities

- An Association with over 600 members from India and abroad working since last 68 years for the growth and development of Leather and its allied industries.
- Organize seminars, symposiums, workshops in order to share information, knowledge & latest development and interactions for the benefit of all concerned.
- Organize Human Resource Development programmes on regular basis.
- Publish for over 60 years, a technical monthly journal namely "Journal of Indian Leather Technologists' Association" (JILTA), widely circulated through out the World.
- Publish books for the benefit of the students at various levels of study, for the Research Scholar and the Industry.
- Work as interface between Industry and the Government.
- Assist Planning Commission, various Government Institutions, Ministry and autonomous bodies to formulate appropriate policies for the growth of the Industry.
- Assist small and tiny leather goods manufacturers in marketing their products by organizing LEXPOs in Kolkata and different parts of India.

Indian Leather Technologists' Association

[A Member Society of International Union of Leather Technologists' and Chemists Societies (IULTCS)]

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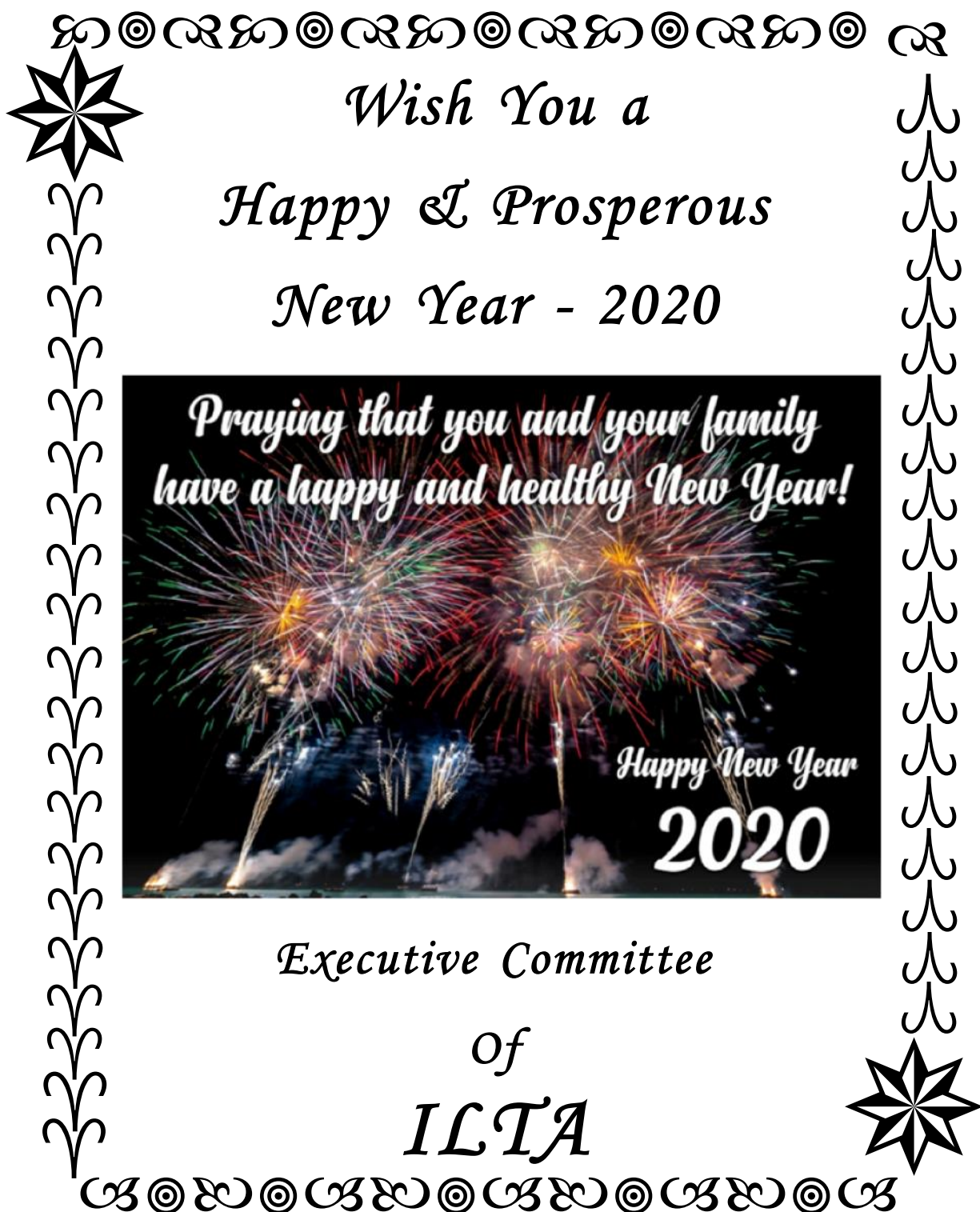
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JOURNAL OF INDIAN LEATHER TECHNOLOGISTS' ASSOCIATION (JILTA)

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Gross Indicator of Global Economic Status



Copper has acquired the nicknames “Dr Copper” and “the metal with a PhD in economics” due to its uncanny ability to diagnose the health of the broader economy. This is largely because copper has a host of industrial uses—including for electrical wiring, roofing, plumbing and industrial machinery—and because its supply is relatively stable, which means that prices are closely correlated with demand.

Economists and investors alike thus closely track the price of the commodity to infer how the economy is doing and will have been on edge when copper prices sunk to over two-year lows in late September amid heightened concerns about the Chinese economy, which consumes around one-half of the world’s copper, amid ongoing trade tensions with the United States. Despite bouncing back somewhat following disruptions to supply in Chile and optimism related to the “phase one” trade deal, copper prices traded at USD 5,827 per metric ton on 1 November, which was still down 2.1% on a year-to-date basis and 4.5% from the same day in 2018.

Looking at our projections for next year, Dr Copper indicates that a global recession does not seem to be around the corner. Our Consensus Forecast projects that copper will average USD 6,288 per metric ton in Q4 2020, comfortably above the symbolic USD 6,000 per metric ton mark. At the same time, trading patterns in the Chicago Metal Exchange and London Metal Exchange seem to suggest funds are starting to turn more bullish on copper.

Whisper it softly, but there are the very first signs that funds are turning more friendly to Doctor Copper. London Metal Exchange (LME) copper has been locked into a sideways trading pattern since the middle of the year with robust internal dynamics swamped by the broader, negative macro story. Concerns about China’s manufacturing slowdown and the Sino-U.S. trade dispute have manifest themselves in a big fund short position on the CME copper contract since June. That big short, however,

has shrunk a lot over the last couple of weeks as the prospect of some sort of trade deal becomes more credible. London copper, meanwhile, has seen a flurry of interest in the options market with buyers looking for upside exposure next year. This is still a tentative turnaround but it seems as if the money men are starting to look beyond the copper-negative Trump tariffs trade.

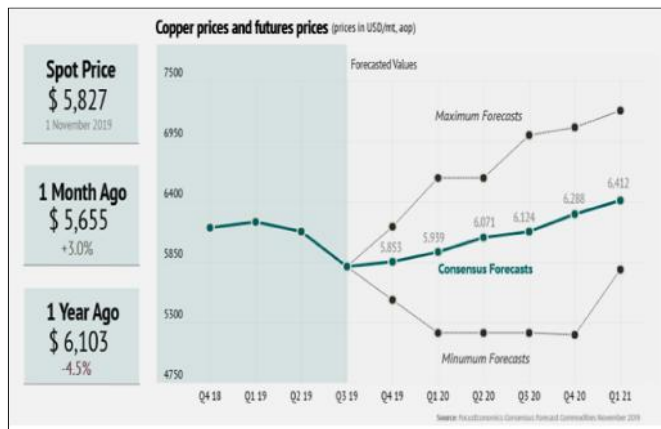
No one is denying the current weak state of demand but copper’s supply-side has also been underperforming this year, with the International Copper Study Group forecasting mine production to drop by 0.5% in 2019. Moreover, the price weakness this year has not been accompanied by any noticeable build in inventories. Global exchange stocks of copper were 438,000 tonnes at the end of October, up just 9,000 tonnes on October 2018. Exchange stocks may tell only part of the story but, according to JPMorgan, inventories at consumers and end-users are also low.

This means any further supply-side disruption could “exponentially heighten the physical market impact”. Events in Chile, the largest copper-producing country, are being closely followed. The anti-government protests haven’t yet seriously disrupted the country’s copper sector, but the question is whether this will remain the case, particularly with multiple mine labour contract renewals pending next year. In essence, funds are starting to bet that copper’s internal supply-usage dynamics will assert themselves over the macro uncertainties that have weighed down the price this year. This is of course predicated on a shift in expectations about the deadlocked trade talks between the United States and China. While U.S. President Donald Trump told reporters on Friday he hasn’t “agreed to anything”, there are rising expectations that some sort of limited trade deal is becoming more plausible. A so-called “phase one” deal would mean a partial roll-back of tariffs. It would in all likelihood represent only a truce in the bigger stand-off between the two countries but at least lift some of the fog of uncertainty playing on markets’ minds.



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It's also evidently started to get money managers thinking about how copper might fare in the absence of that uncertainty, particularly if this year's supply woes extend into next year. The shift in sentiment is still tentative, though, because fund managers know as well as everyone else that everything could yet change with the next presidential tweet. These have been the opinions expressed here are those of the author, a columnist for Reuters, Andy Home.



Nevertheless, as highlighted by the chart above and our numbers of the week, the spread between our panellists' projections is significant: The minimum forecast for Q4 2020 is USD 5,182 per metric ton, while the maximum forecast is USD 7,000 per metric ton. Furthermore, many analysts argue that copper prices should be trading much higher given the supply and demand outlook. With regards to supply, uncertainty has spiked due to the tense political situation across much of Latin America, where approximately one-third of output is located. Of particular relevance are the protests which have recently engulfed Chile, the world's largest copper producer; BHP, for example, announced on 29 October that its Escondida mine, the world's largest, was operating at a "reduced rate" after its employees joined the anti-government protests. On top of this, supply is below capacity due to long-term under-investment.

Meanwhile, the long-term demand outlook should be bright given we will need a lot of copper if we are to succeed in decarbonising and transitioning towards a more sustainable world : Electric cars require about three times more copper than traditional cars and the metal is also currently instrumental in producing wind turbines, solar panels and other renewable energy sources.

Given the above and fears of a global recession swirling, economists and investors will continue to keep a close eye on Dr Copper's diagnosis of the health of the global economy.

BHP said its Escondida copper mine, the world's largest, was operating at a "reduced rate" after union workers walked off the job for part of the day on Tuesday in solidarity with the anti-government protest movement across Chile. Chile, the world's top copper producer, has long been one of the region's most prosperous and stable free-market economies. But entrenched inequality and spiraling costs of living ignited massive, and sometimes violent, protests last week. Riots, arson and looting have led to at least 18 deaths, resulted in more than 7,000 arrests and caused upwards of \$1.4 billion in losses to Chilean businesses. (Reporting by Fabian Cambero, writing by Dave Sherwood Editing by Tom Brown)

Golden quotes:

Goldman Sachs :

"All else equal, this weak demand backdrop should have led to big surpluses. Instead, the physical market displays remarkable resilience due to offsetting supply adjustments on the concentrate and scrap side. Case in point, inventories have remained below their historical averages, and China prices and premia have risen. We expect the global refined copper market to be in balance this year and prices to be range-bound near term."

Nicolas J. Aguilar, economist at Focus Economics :

"While this year's scant supply is likely to boost copper prices in the medium- to long-term, apprehension about the demand outlook has constrained investor appetite for the red metal. Particularly, U.S.-China trade talks have heightened uncertainty over demand for copper at a time when a slowing Chinese economy is already weighing on demand. Our panel's wide forecast range reflects just how quickly the trend could flip in the event of a trade deal."

Goutam Mukherjee

Dr. Goutam Mukherjee
Hony. Editor, JILTA



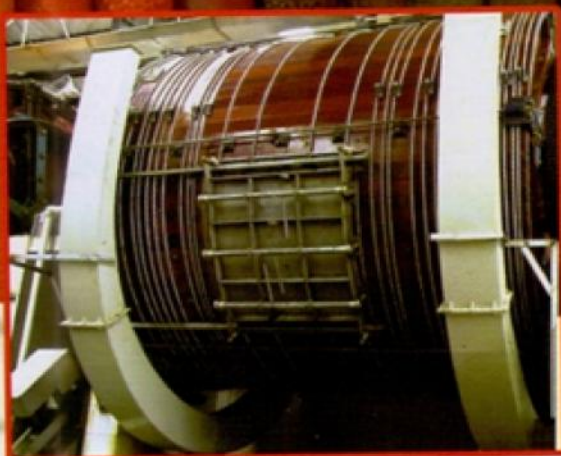
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From the desk of **General Secretary**



LEXPO Siliguri – XXVI

Above which was scheduled to be held at Kanchanjungha Stadium adjacent ground from 21st December, 2019 to 5th January, 2020 had to be called off at the last minute as per advice of Siliguri Police Commissionerate & SDO Office, Siliguri due to unrest prevailing at the time in the North/North-East caused by large scale agitation in protest against NRC/CCA.

The competent authority has been requested to see if we may be allocated the venue again in February/March, 2020.

18th Sanjoy Sen Memorial Lecture

Above is scheduled to be held at 03.00 PM on Tuesday the 14th January, 2020 at the Auditorium of Freya Design Studio, Calcutta Leather Complex, Bantala, South 24 Parganas.

Dr. Subir Chowdhury, Ex-Director, Indian Institute of Management, Kolkata has kindly consented to deliver the prestigious Sanjoy Sen Memorial Lecture titled “**Changing Scenarios of Global and Local Economics – Implication for Business including Leather**”.

Prof. Asok Kr. Banerjee, Immediate Past President, Calcutta Management Association, has kindly consented to be present as the **Guest of Honour**.

Programme is as follows :-

- Registration
- Welcome Address by President, ILTA
- Address by Guest of Honour
- Award of Sanjoy Sen Memorial Medal
- Sanjoy Sen Memorial Lecture by Dr. Subir Chowdhury
- Vote of Thanks by General Secretary, ILTA
- Refreshment

Individual invitation cards were posted on 27th December, 2019.

2nd S. S. Dutta Memorial Lecture

Above is scheduled to be held at 10.00 Hrs on 2nd February, 2020 at Seminar Hall ‘A’ at Chennai Trade Fair during IILF – 2020. Mr. S. Rajasekaran, a senior occupational Health & Safety Auditor based at Faridabad has kindly consented to deliver the 2nd S. S. Dutta Memorial Lecture.

Individual invitation cards with more details will be posted in due course.

Read and Let Read :-



You are requested to :-

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(Susanta Mallick)
General Secretary

Read and Let Read :-

JILTA

Executive Committee Members meet
every Thursday at 18-30 hrs. at ILTA Office.
Members willing to participate are most welcome.

Environment

Mr. Dinker Bajpai,

Leather Technologist, Bureau Veritas, Consumer Products Services India Pvt. Ltd., Noida



Treatment of Tannery Waste Water

Tanneries belong to industrial sectors with the highest levels of water consumption. To make good quality leather from one ton of raw material, experience has shown that up to 60 m³ of water are required. The volume of waste water, which contains high levels of alkaline and organic substances, is of course, correspondingly high. Direct discharge or treatment in municipal waste water clarification plants is therefore not possible without appropriate treatment of the waste water. For corresponding treatment in the tanneries, decanters from GEA Westfalia Separator are used which optimally prepare a subsequent biological treatment.

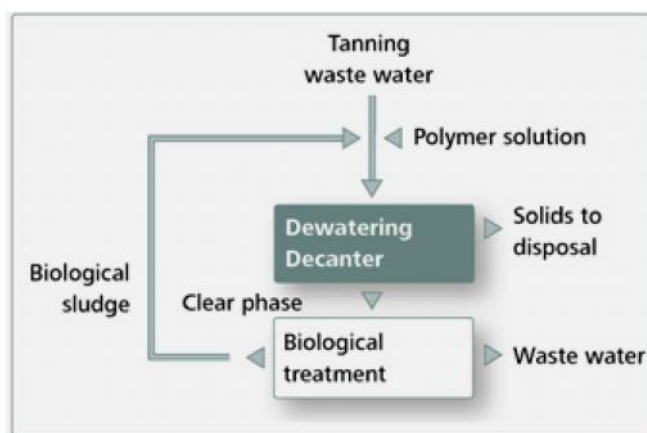
Leather production is one of the oldest trades. Modern industrial-scale production still requires extremely high volumes of process water. The water is not only needed for transportation in the production process but also for various tasks such as unhairing or soaking the hides. The waste water problem is correspondingly acute – in European producer countries like Italy and Spain but also in China, India, Korea, Brazil and the USA, to name just the most important producers.

As a result of the specific production methods, the waste water not only has high alkaline levels (pH value 10), but is also contaminated with chemicals such as sulphite and chrome, and has a high level of organic substances. This means that waste water from tanneries cannot usually be discharged directly into public sewerage systems. To solve the problem, biochemical processing of the waste water is a standard operation in many installations. Decanters from GEA Westfalia Separator also play a significant role.

After the waste water has been collected from the tanning process and polymer has been added, the decanters continuously separate all organic solids such as hair from the

thickened sludge. The separated solids can be composted and find application, for example, in horticulture or forestry. The liquid phase is then subjected to biological treatment. The resultant sludge is recycled into the dewatering process; the waste water can be sent safely to conventional municipal waste water treatment plants.

The advantages of decanters provide optimum dewatering capacity and use very little rinsing water. The closed system prevents aerosols from escaping; such aerosols would otherwise pose a hazard for humans and the environment



Waste water treatment in tanneries

Environmentalists and Citizens Protest Tannery Toxins

Environmental activists and villagers in Kanpur, home of the largest tanneries in India, recently banded together and blocked a tannery drain that releases toxic effluent into the Ganges.

The action was prompted by the fact that effluent from leather tanneries, despite being polluted with chromium and other chemicals used in the tanning process was being promoted as “treated” and safe for irrigating farmland. But the polluted water has laid waste to crops and is rendering the soil infertile.

Corresponding author E-mail : dinker1986@gmail.com

Villagers who are exposed to this water complain of itching, raw skin, numbness and paralysis. Livestock who drink the water are also suffering adverse effects. Environmentalists fear that the toxins from the tannery effluent are being passed through the food chain and report that some villagers are already showing signs of poisoning.

Environmental Effects of Leather

Leather factories wreak havoc on the environment. The leather tanneries around the Ganges have been cited for dumping toxic metals such as chromium into the river. All waste that contains chromium is considered hazardous. Tannery effluent also contains large amounts of other pollutants, such as protein, hair, salt, lime, sludge, sulphides and acids. Groundwater near tanneries has been found to contain highly elevated levels of lead, cyanide and formaldehyde.

People who work in and live near tanneries are dying of illnesses caused by constant exposure to toxic chemicals. Pollution such as the kind dumped into the Ganges by leather tanneries has been cited as a major cause of disease outbreaks and has also been implicated in the deaths of marine animals. The US Centers for Disease Control and Prevention found that the incidence of leukaemia among residents near one tannery was five times the US average.

Treatment of Paint Sludge

Paint is applied in many areas of industry, for a wide range of reasons: not just for better visual appearance; protection against corrosion and improved surface qualities are also very important. Waste water does not usually occur during the manufacture of paint as the systems are closed to water. However, waste water may occur in peripheral processes, for instance in the cleaning of packaging materials, mixing tanks and dyestuff preparation tanks.

Such wash water contains dispersed acrylate and vinyl resins, dissolved cellulose derivatives, together with residues of pigments and filling agents, solvents, traces of acids or lyes from pH-value adjustment as well as residues of preserving agents. Decanters from GEA Westfalia Separator demonstrate their performance and efficiency in the treatment of these waste waters.

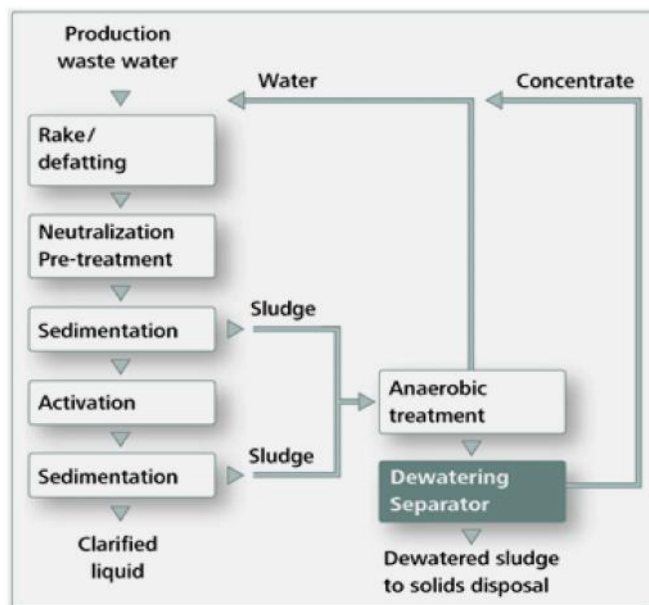
The use of decanters in paint shops can considerably reduce disposal costs for the paint sludges. The sludge obtained is stored in a storage facility and then pumped into the decanter.

The solids discharge is disposed of or recycled; the clarified phase is recycled back into the process reducing the costs of waste water disposal and the use of fresh water. Today, environmentally-friendly, water-based paints are used specifically in the aviation and automotive industries, and in many other areas of industry. Decanters from GEA Westfalia Separator separate paint residues from the water and ensure that it can be reused. The high-speed operation creates a large clarification area to ensure high throughput capacities and better separation with a high dry substance content.

Treatment of Pharmaceutical Waste Water

Huge quantities of chemicals and biological primary substances are required for making medical products. This means that the production waste water also contains a wide range of substances that cannot be easily separated from the sewage sludges. Moreover, conventional clarification and sedimentation tanks, which cover a large area and require relatively long purification times, make it very difficult to comply with statutory limit values in the waste water.

The situation is completely different with decanters from GEA Westfalia Separator. Their additional application rids the production waste water of contaminants to a level that reliably meets the statutory limit values. A major advantage of decanters compared with membrane filtration installations is that there are no "clogging" phenomena, so stable process reliability is ensured.

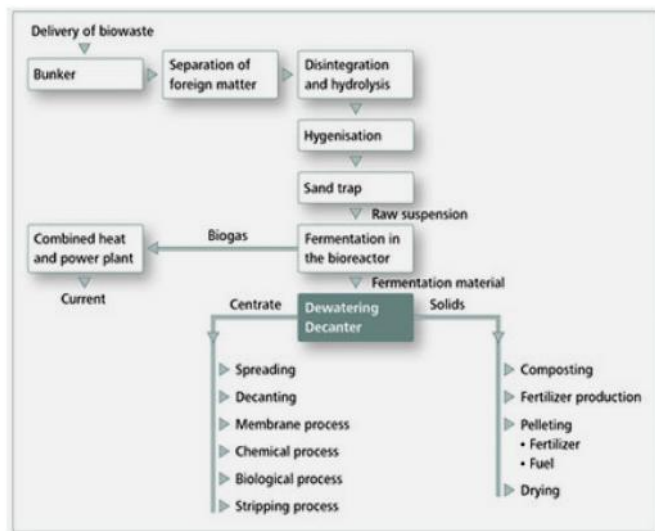


Waste water treatment in the pharmaceutical industry

From the balancing tanks, the waste water is sent to aeration tanks for biological treatment, then sent via preclarifiers to a compensation tank which is used as a buffer tank. The decanter is then responsible for dewatering the waste water. The excellent separation efficiency of the decanter allows direct discharge of the waste water into waters.

Treatment of Fermentation Residues

For the enthusiastic amateur gardener, the method of composting organic waste for recycling natural fertilizer into the nutrient cycle may be sufficient; however, a different method is necessary in the waste and disposal industry. The innovative method of anaerobic biowaste fermentation was established in the mid 1990s. This technology has demonstrated its worth as a method of recycling to save energy, protect the environment and conserve resources. Decanters from GEA Westfalia Separator make an important contribution in this respect.



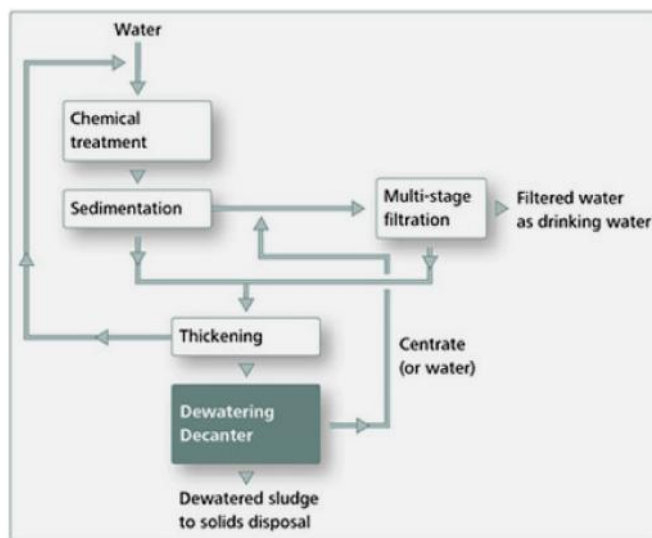
Installation example of wet fermentation

The size of the items of biowaste is reduced to a maximum of 60 mm by removing all foreign substances such as plastics, metal and textiles. Water is then added and the mixture is treated at 70 °C for an hour. After sand has been removed and the fibers broken down further, this mixture of biowaste and water has a grain size of less than 10 mm and can be fermented under anaerobic conditions in a digesting tower. A significant side effect of the fermentation process is the production of biogas, which can be used to generate electricity after it has been dried and cleaned, and more than covers the fermentation system's own energy requirement. Decanters from GEA Westfalia Separator are used to dewater the fermented biomass from the fermenter by separating solid particles and dewatering them to

a free flowing dry consistency. The solids, which are discharged by the decanter are a valuable fertiliser which is suitable for use in gardening, agriculture and forestry. The clear centrate is recycled into the fermentation process.

Treatment of Drinking Water Sludges

Drinking water is obtained either from ground water or surface water. The use of surface water is on the increase with a growing population and progressive environmental pollution. In the EU countries, 64 percent of drinking water is already obtained from surface water. Centrifugal separation technology from GEA Westfalia Separator plays a central role in this process. The volume of sewage sludge that has to be disposed of is significantly reduced thanks to the reliable separation of undesirable constituents. At the same time, more drinking water is available.



Treatment of drinking water sludges

Humus, minerals, organic impurities, chemical residues, viruses and bacteria must be removed from the surface water. Various chemical processes are initially applied for purification. Clarifying decanters then take on the job of dewatering the sludge produced during sedimentation. Due to its high bowl speed and high scroll torque in conjunction with a differential speed control which functions in dependence of the solids loading, the clarifying decanters achieve optimum clarification efficiency and maximum possible solids dewatering.

In this way, the volume of sewage sludge to be disposed of is reduced and as much water as possible is recovered for drinking water supply. The closed design together with the likewise

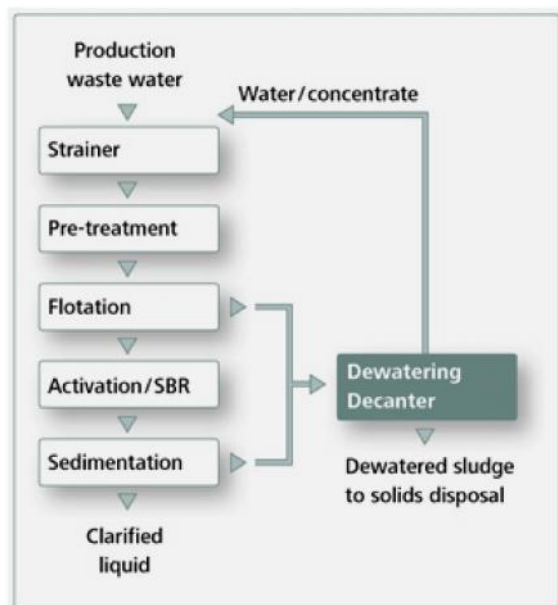
closed installation prevents the emission of aerosols so that humans and nature are protected in equal measure.

Treatment of Dairy Waste Water

The average volume of waste water in dairies is currently 1.3 l/kg milk. This results in considerable waste water disposal costs. The centrifugal separation technology from GEA Westfalia Separator paves the way for major potential savings by minimizing the use of fresh water and reducing the volume of residual sludge.

Hygiene is the most important factor in milk processing and the production of dairy products. This necessarily results in the use of considerable volumes of water for cleaning purposes. In addition, considerable quantities of waste water with volatile milk constituents, fats and proteins occur when milk is being processed, particularly during evaporation and spray-drying.

GEA Westfalia Separator supplies ideal modules for this application in the form of special decanters which save money, boost efficiency and are user-friendly.



Waste water treatment in dairies

After aerobic or anaerobic biological treatment of dairy waste waters, the residual sludge is sent through a clarifying decanter which efficiently dewateres the sludge before the clean water is recycled back into the process. A calculation by the Verband der deutschen Milchwirtschaft (Association of German Dairying) shows how in-plant waste water treatment pays: direct

dischargers, i.e. operations with their own waste water processing facility, operate with costs that are up to two thirds lower than users of municipal waste water treatment plants.

Chemical / Pharmaceutical Technology

The gentle treatment of fragile cell cultures, process management that meets maximum IP and SIP requirements, and comprehensive safety, e. g. in the treatment of concentrated acid compounds or explosive mixtures – our separators, decanters and membrane filtration installations developed specifically for these sectors meet exceptionally high standards of safety, hygiene and product quality.

The following are some examples:

- ñ Steam-sterilizable separators which treat products extremely gently with their hydrohermetic feed, provide GMP design and reliably eliminate the danger of product contamination by using components that are all sterilizable (including the separator)
- ñ Separators in various corrosion-resistant special materials for use in the chemical industry
- ñ Classifying decanters for use in mineral processing with special drive systems for high torques
- ñ Gas-tight decanters in accordance with ATEX regulations that are designed for systems with overpressure and whose electrical components are suitable for operation in explosion-hazardous zones

We combine the complex safety requirements of the chemical, pharmaceutical and biotechnology industries with high separating performance and considerably reduced operating costs of separating installations in the following fields:

Organic, inorganic and petrochemicals:

- ñ Acids (inorganic and organic)
- ñ Aldehydes / alcohols
- ñ Aluminum hydroxide
- ñ Barium sulphate
- ñ Catalyst separation (as well liquid gas)
- ñ Cellulose and derivatives
- ñ Cosmetic and hygiene products
- ñ Gum arabic
- ñ Lyes
- ñ Nitration of aromatic compounds

- Ñ Nylon, caprolactam
- Ñ Paints, lacquers, resins
- Ñ Peroxides
- Ñ Pesticides
- Ñ Petrochemical additives
- Ñ Phosphoric acid
- Ñ Phosphors
- Ñ Printing colours, ink
- Ñ Polyacetates
- Ñ Polyethylene
- Ñ Solvent recovery / clarification
- Ñ Recovery of alkali salts(boiler ash)
- Ñ Terephthalic acid
- Ñ Viscose, cellulose acetate
- Ñ Xanthan

Pharmaceutical biotechnology :

- Ñ Animal cell cultures
- Ñ Enzymes
- Ñ Human blood proteins
- Ñ Human vaccines
- Ñ Insulin from biomass
- Ñ Starter cultures (bacteria cultures)
- Ñ Synthetic pharmaceutical products
- Ñ Veterinary vaccines

Extraction:

- Ñ Alkaloids
- Ñ Antibiotics
- Ñ Aromatic substances
- Ñ Essential oils
- Ñ Fragrances
- Ñ Herbal medicines
- Ñ Medicinal teas
- Ñ Organ extracts
- Ñ Pectins
- Ñ Polycarbonate
- Ñ Statins
- Ñ Steroids, hormones
- Ñ Vitamins

Mineral processing:

- Ñ Industrial minerals· Calcium carbonate· Kaolin· Bentonites· Titanium dioxides

- Ñ Metal ores (crud treatment / clay treatment and PLS clarification) · Copper· Nickel· Zinc· Cobalt

Renewable Resources

Renewable resources offer many opportunities for companies in a wide range of industry: They provide food for the world's population, are a substitute for fossil fuels, and consequently contribute towards the creation of completely new products and industrial processes. The economic management of natural resources is a pressing issue of our times.

Backed up by our know-how from the recovery and processing of oils and fats, starch and proteins, fermentation products and biofuels, we provide you with market support for established processes and give our customers a decisive competitive edge: process know-how and development from a single source for optimum added value throughout the entire life cycle.

GEA Westfalia Separator is at the same time a centre of competence for innovative ideas and visions, precisely when it comes to opening up and developing renewable energy sources. We support the pioneers of our age through state-of-the-art process engineering, from laboratory trials through to industrial implementation.

Read more about our proven core competences and innovative solutions for :

Animal by-products

- Ñ Blood plasma and blood meal
- Ñ Edible fats
- Ñ Flotation sludge
- Ñ Gelatine
- Ñ Protein hydrolyzate
- Ñ Technical fats

Biofuels

- Ñ Biodiesel
- Ñ Fuel from rapeseed oil

Ethanol

- Ñ Ethanol from raw materials containing starch without obtaining protein

- Ñ Ethanol from raw raw containing starch, also obtaining protein
- Ñ Ethanol from raw raw containing sugar

Fermentation products

- Ñ Algae
- Ñ Baker's Yeast
- Ñ Lysine
- Ñ Ribonucleic Acid (RNA)
- Ñ Yeast Extract

Fermentation raw materials

- Ñ Molasses

Fish products

- Ñ Fish oil and fish meal (recovery)
- Ñ Fish protein hydrolyzate
- Ñ Processing of by-products
- Ñ Surimi

Oils & Fats

- Ñ Avocado oil
- Ñ Cottonseed oil
- Ñ Fish oil (processing)
- Ñ Maize germ oil

- Ñ Olive oil
- Ñ Palm oil (processing)
- Ñ Palm oil (recovery)
- Ñ Rapeseed oil
- Ñ Soy oil
- Ñ Sunflower oil

Protein

- Ñ Plants which contain protein and carbohydrate
- Ñ Potato protein
- Ñ Rice protein
- Ñ Soy protein

Starch

- Ñ Corn starch and corn gluten
- Ñ Pea starch and pea protein
- Ñ Potato starch
- Ñ Rice starch
- Ñ Starch from tapioca / manioc / cassava
- Ñ Wheat starch and wheat gluten

Special products

- Ñ Cocoa butter washing and clarifying
- Ñ Deep-frying fat clarification
- Ñ Latex
- Ñ Seed fats and oils

Water Quality Criteria

Designated-Best-Use	Class of water	Criteria
Drinking Water Source without conventional treatment but after disinfection	A	Total Coliforms Organism MPN/100ml shall be 50 or less pH between 6.5 and 8.5 Dissolved Oxygen 6mg/l or more Biochemical Oxygen Demand 5 days 20°C 2mg/l or less
Outdoor bathing (Organized)	B	Total Coliforms Organism MPN/100ml shall be 500 or less pH between 6.5 and 8.5 Dissolved Oxygen 5mg/l or more Biochemical Oxygen Demand 5 days 20°C 3mg/l or less
Drinking water source after conventional treatment and disinfection	C	Total Coliforms Organism MPN/100ml shall be 5000 or less pH between 6 to 9 Dissolved Oxygen 4mg/l or more Biochemical Oxygen Demand 5 days 20°C 3mg/l or less
Propagation of Wild life and Fisheries	D	pH between 6.5 to 8.5 Dissolved Oxygen 4mg/l or more Free Ammonia (as N) 1.2 mg/l or less
Irrigation, Industrial Cooling, Controlled Waste disposal	E	pH between 6.0 to 8.5 Electrical Conductivity at 25°C micro mhos/cm Max.2250 Sodium absorption Ratio Max. 26 Boron Max. 2mg/l
	Below - E	Not Meeting A, B, C, D & E Criteria



We imagine high-quality shoe & leather care to be customizable to every customer's demand

Leather is a fascinating product that needs regular care to reach and maintain its optimum condition. General use causes cracking, delamination and discoloration, all of which can be prevented by proper cleaning and protection. Stahl's range of Shoe & Leather Aftercare products brings out the best of your leather items and makes them more durable at the same time.

Enhanced resistance and easy cleaning

Whether it's for automotive upholstery, footwear, garments, leather goods or upholstered furniture, our products are shielding leather by creating an invisible, breathable barrier that enhances stain resistance and easy cleaning.

The range includes products for cleaning, protecting, refinishing and repairing. We even have solutions to upgrade your leather product so that it fits the latest fashion trends.

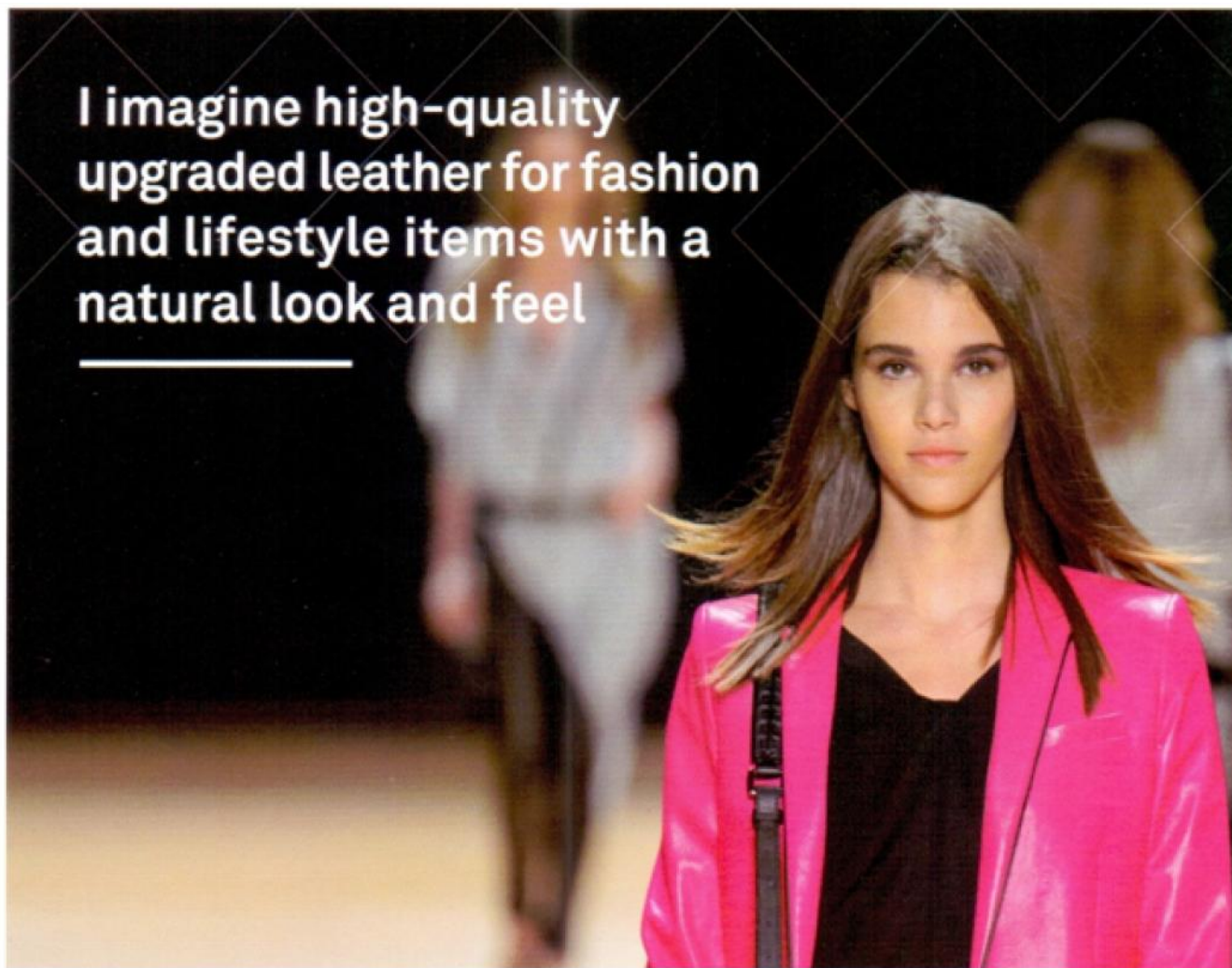
There is no such thing as one size fits all, so all of our solutions are available in endless and customizable variations in order to meet all your requirements. Curious what our Shoe & Leather Aftercare solutions can do for your business? Please visit www.stahl.com or contact us at stahl.india@stahl.com.

If it can be imagined, it can be created.



ILTA
Since 1950

I imagine high-quality
upgraded leather for fashion
and lifestyle items with a
natural look and feel



At Stahl, we love high-quality leather with a natural look and outstanding credentials. We want leather to be soft on the skin and both a pleasure to wear and to look at. To increase the availability of such leather we developed Stahl Easy-KAT: an easy-to-use, water-based leather upgrading product range for hides with small to medium grain defects.

Effective upgrading for high-quality leather

Easy-KAT enables tanners to widen their horizon by producing more leather that retains its luxurious appearance over time. Small imperfections in a hide, such as scratches and insect damage, are eliminated without affecting the suppleness, appearance or feel of the finished leather. The secret of

Easy-KAT is its natural affinity to anionic substrates and great sealing and levelling power, resulting in soft and flexible leather with all its natural aspects preserved. From high gloss to matt leather – anything is possible.

Easy-KAT is suitable for any type of crust. The finished leather is perfect for high-end fashion items, such as shoes, bags, garments, and jackets. Leather items tanned with Easy-KAT are the items consumers love to wear or carry. Curious what Easy-KAT can do for your business? Please visit www.stahl.com or contact us at stahl.india@stahl.com.

If it can be imagined, it can be created.

www.stahl.com



EXPORTS DECLINE 1.11% IN OCT, TRADE DEFICIT FALLS



Petroleum products, leather, garments dip; electronics, engineering, chemicals rise

Exports of goods declined for the third month in a row in October 2019 to \$26.38 billion posting a 1.11 per cent fall year-on-year (YoY) with sectors such as petroleum products, leather, readymade garments, carpets and a wide range of farm products taking a hit.

The fall in imports in October 2019 was at a steeper 16.31 per cent to \$37.39 billion which narrowed the country's trade deficit to \$11.01 billion compared to \$18 billion in October 2018.

There were, however, a number of labour-intensive sectors, such as gems & jewellery, engineering goods, drugs & pharmaceuticals and marine products, where exports increased during the month, although marginally, indicating a possible recovery in demand in the months ahead.

"The exports of October is reflective of the global slowdown which has led to the slackening of demand, which is also seen in fall of imports especially in raw material used for either production or manufacturing. However, few sectors like electronic goods, engineering goods and organic and inorganic chemicals are showing resilience and growth," said Mohit Singla, Chairman, Trade Promotion Council of India.

In April-October 2019-20, exports fell 2.39 per cent to \$185.95 billion while imports declined 8.37 per cent to \$280.67 billion. Trade deficit narrowed to \$94.72 billion in April-October 2019 compared to \$116.15 billion in April-October 2018.

The Federation of Indian Export Organizations (FIEO), in its statement, pointed out that exporters were concerned about the popular Merchandise Export from India Scheme as their claims under the scheme were pending for over three and half months, which had affected liquidity positions and finalization of new contracts.

"The World Trade Organization-complaint scheme, Remission of Duties or Taxes on Export Products, should be notified with the rates for the products with lead time of three months so that exporters may factor the same in finalizing new orders and make transition to new scheme smooth," the release stated. In October 2019, petroleum imports declined 31.7 per cent to \$9.6 billion while gold import increased 4.74 per cent to \$1.83 billion.

LEATHER EXPORT INDUSTRY SHOULD DEVELOP CLUSTERS IN BACKWARD AREAS'





ILTA
Since 1950

UNION Minister Nitin Gadkari on Thursday suggested the leather export industry to develop clusters in backward areas as they can get land and manpower at affordable prices, with a view to boost shipments. The Road Transport and Highways and MSME Minister said the Government can think of giving incentives to such clusters, which will have all the facilities like labs and design centres, for the leather industry.

“You plan a policy for next 50 years. Develop clusters in backward areas because there, you will get land and manpower at cheap rates. We can give power, and logistics cost will be less there. We will try our level best for low taxation because the area is backward,” he said.

He was speaking at the CLE National Export Excellence Awards here. The minister suggested the industry to explore options of buying land and develop clusters around the 22 new green expressways. Citing example of the Delhi-Mumbai highway, he said that this will pass through economically backward and tribal areas in Maharashtra, Madhya Pradesh, Rajasthan, and Haryana. Land near Delhi and Kanpur is expensive, he said adding the industry should look at new locations now from the current hub in Kanpur, Agra and Chennai.

He also said the government would announce steps for the micro, small and medium enterprises (MSME) sector and by that, 99 per cent of leather units would come under the ambit of MSME sector from the current 92 per cent. “I will make 99 per cent of the sector MSME. We have already taken up the decision and we will declare before November 18,” Gadkari said. He added that a cluster will have research, skill and training centres, besides laboratories and design centre and “we will help you for that and we can make scheme for that.”

The Union Minister also said leather exports stood at about Rs 42,000 crore and turnover of the industry is around Rs 83,000 crore, but the growth of the industry is not a planned growth. Further, the MSME Minister said three things are important for exports — capital, power and logistics costs — and by reducing this, “we can make our industry more economic viable in the international market.”

On the capital issue, he said cost of capital is high in the country and it is difficult to get finance from the banking

system. He suggested that the government is looking at ways to provide loans in foreign currency. Government is trying to make a system wherein it would give credit rating to units based on their track record.

(Hitavada – 15/11/2019)

LEATHER EXPORTERS PENETRATE NEW MARKETS TO BOOST SHIPMENTS

Leather exporters from India have penetrated new markets such as the US, Canada, Russia, Japan, Australia, and South Korea to tap increasing demands in these countries and boost the country's overall exports, CLE said on Friday. Council for Leather Exports (CLE) Chairman P R Aqeel Ahmed said that they have organized Reverse Buyer-Seller Meet here to showcase products to global companies.

“Besides the traditional market of Europe, the industry has penetrated many potential markets like USA, Canada, Russia, Japan, UAE, Korea, and Australia,” he said in a statement. He said the Council has been undertaking several export promotion events in both Europe and other major and potential markets to expand market share.

“During 2019-20, we are organizing 16 such marketing events and have planned 25 marketing events during 2020-21,” he said adding that in the Reverse Buyer-Seller Meet here, as many as 55 overseas buyers from 26 countries participated. Such events provide platform to Indian exporters particularly those in the small and medium segments to meet overseas buyers without having to travel abroad, he added.

“CLE has planned three such meetings in 2020-21, one each in Kolkata, Delhi and Kanpur, which will provide opportunities to our exporters spread across the nation to meet the overseas buyers,” Ahmed added. The labour-intensive leather industry provides employment to about 4.42 million people, 30 per cent of whom are women.

GROWTH IN BANGLADESH LEATHER SECTOR

According to Bangladesh's Export Promotion Bureau (EPB), the leather and leather products sector registered a growth rate of 1.32% resulting in earnings of \$185.41 million in July- Aug 2019.

This figure was \$183 million during the same period in the 2018-19 F.Y. Shaheed Ahmed, chairman of the Bangladesh Tanners Association (BTA) said. That besides the traditional markets such as South Korea, China, European Union, US and Canada the export of leather product has also increased in non-traditional ones like South Africa, India, Australia, Spain, Japan and Singapore.

Moreover, the value addition to leather products was another reason behind the positive export trend. Over the –past two years, however, the leather sector had registered negative growth because of slow shift of tanneries from Hazaribagh to the newly built Savar Tannery Complex.

(Indian Leather Magazine – October, 2019)

LEATHER AND LEATHER FOOTWEAR EXPORT FACING MASSIVE CHALLENGES

Leather and leather footwear export has been facing significant hurdles due to a challenging internal as well as external environment. Demand has been impacted due to the weak consumer sentiment in the European Union (EU - the biggest destination of India's footwear exports) and a significant drop in the value of the British Pound (GBP) following the vote on referendum to exit the European Union, according to an ICRANSE 0.90 % report.

The sector is also facing headwinds due to appreciation in the value of the rupee against major currencies and recent regulatory restrictions placed on slaughter of animals and on leather tanneries, impacting raw material availability. Because of these factors, the export figures show a decline for two consecutive years, by ~9% in FY2017 and ~5% in FY2018. ICRA expects similar trends to continue in the near term which should impact the earnings of export focused leather footwear players.

On the domestic front, whilst the Indian footwear industry has historically recorded a healthy growth driven by increasing footwear demand and Average Selling Price (ASP), growth has slowed in FY2017 and FY2018 due to moderation in consumer sentiments. Additionally, the demonetization drive in November 2016 also had an impact on consumer demand for footwear during FY2018.

The revenues of export-focused footwear players (these are mainly involved in leather products) in ICRA's sample set declined by 2% in FY2018 while the revenues of players focused on the domestic market (involved in leather as well as non-leather products) saw a growth of 3% in FY2018. Aggregate operating profitability margin of the entities focused on exports has declined, from 14.1% in FY2017 to 12.0% in FY2018, while the aggregate operating profitability margin of companies focused on the domestic market.

The credit risk profile of the exporting companies is relatively weak and it deteriorated marginally in FY2018. On the other hand, the credit risk profile of footwear companies focusing on the domestic market is relatively strong and has further improved in FY2018 on the back of higher revenues and OPBIDTA. For the sample as a whole, the aggregate credit risk profile has improved due to higher weight of players focused on the domestic market.

According to Mr. Shubham Jain, Vice-President and Sector-Head, Corporate Ratings, ICRA, "Though the players focused on leather products and export markets are likely to face headwinds due to combination of internal and external factors and may see pressure on revenues; the credit risk profile is likely to remain comfortable on account of limited leverage and lower expected capex. On the other hand, the revenue of those entities in ICRA's sample which are focused on domestic market is to see healthy improvement, once the impact of demonetization and GST wanes out, and these players are likely to report better credit metrics."

Notwithstanding the recent moderation in growth, overall, the outlook on the industry is stable. Currently, India's per capita consumption is 1.6 pairs per person as opposed to 6 pairs per person in developed economies and as the economy develops, there is significant growth potential for the domestic demand to expand, due to the changing consumer preferences, growing middle class, increase in working class population, and higher disposable income.

(Economic Times – 28/11/2019)



Late Sunil Kumar Bhadra

(17th February, 1927 – 18th November, 2019)

After completing his schooling, Mr. Bhadra did military services for 2 years following which he completed his Bachelor of Commerce & Bachelor in Leather Technology Degrees from Kanpur. He joined Bata India thereafter and served the company in various capacities both in India & abroad.

During his lifetime, Mr. Bhadra mentored several budding talents grooming them into successful professionals.

Mr. Bhadra was a life member of ILTA and served the Association as General Secretary for two successive years (1970 – 71 and 1971 – 72). He took keen interest in various activities of the Association and always put forward his suggestions for improvement of the same. He headed Footwear Committee formed by ILTA which undertook several Case Studies.

He was our principal representative in the Footwear Sectional Committee, CHD 19 of Bureau of Indian Standard (BIS), New Delhi and regularly attended their meetings till unable to do so due to health reason a few years back.

Mr. Bhadra had pledged his body and donated it to the Department of Anatomy, SSKM / IPGME &R, Kolkata to be used at the discretion of the authority for academic purpose. He had also shown the noble gesture of donating his precious eyes to M.P. Birla Eye Bank.

His passing away on 18th November, 2019 is an irreparable loss to the leather fraternity.



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Think Leather, Think Bengal

Asia's largest & most integrated leather complex with state of the art Common Effluent Treatment Plant (C.E.T.P.)

Over 400 Plus Tannery Units.

Manufacturers & Exporters of finished & leather articles.



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AN ISO CERTIFIED COMPANY

Think Leather, Think Bengal

BARE FOOT SHOE Part - 2

Mr. Shome Nath Ganguly
Former Principal, Karnataka Institute of Leather Technology



Vibram Five Finger Shoe



5 Finger Shoe

It is that if you can move bare foot you can get the extreme comfort while walking or running. Based on this idea many people worked to develop an ideal Bare foot shoe. They planned for a footwear which can replicate being bare foot. This shoe should be made with very thin leather or with artificial materials as an upper material along with a flexible soling material exactly contoured to the shape of human foot. For water related sports like sailing a boat, we can think for waterproof leather as an upper material. During 1999, a European design student Mr. Robert Fliri successfully converts this idea to a real one. This particular shoe was later known as 5 Finger Shoe to the world.

M/S Vibram Spa.'s Five Fingers shoes were developed and introduced in 2005.

M/S Vibram S.P.A is an Italian company based in Albizzate. They first introduced this shoe in the market. They are both manufactures and licensees for the production of Vibram branded rubber outsoles for footwear. The company is named after its founder, Vitale Bramani. Vibram soles were first used on mountaineering boots, replacing leather soles fitted with hobnails or steel cleats. The soles produced by Vibram are called Vibram soles, Vibram rubber, or simply Vibram.

Vibram Five Fingers are a type of minimalist shoe manufactured by Vibram, originally marketed as a more natural alternative for different outdoors activities (sailing, kayaking, canoeing, and as a camp or after-hike shoe).



5 – Fingers Shoe

Purpose

Vibram Five Fingers shoes were originally targeted to yacht racers who requires badly to maintain grip of the feet on slippery decks without compromising the barefoot experience. Their potential use as a minimalist running shoe was suggested to the Vibram CEO by Mr. Ted McDonald, a runner who earned the nickname “Barefoot Ted” for his naked feet and successful career as a barefoot running coach. The purpose of these shoes as outlined by the manufacturers is to provide footwear to be mainly used for fitness, running, water sports, yoga, trekking and travelling, and other sports.



5 – Finger Bikila

Vibram Five Fingers come in a variety of styles and sizes, including Five Fingers KMD Sport, KMD Sport LS, Classic, Sprint, Flow, KSO (the most popular), Trek Sport, KSO Trek, Bikila (named for Abebe Bikila), Bikila LS, Speed and also men's



5 – Finger Spyri don LS

styles Five Fingers Spyri don, Trek LS and Bormio and women's styles Five Fingers Jaya and Jaya LR. Children's KSO, Sprint and Speed styles are available.

Sizing

Unlike traditional footwear, Vibram Five Fingers shoe do not follow the typical US or UK shoe-sizing scales. They are mainly based on French or Paris Point Size scale. They require precise foot length measurement with accuracy of 1/8 inch (3 mm) and conversion to the Five Fingers sizing chart.

This ranges for **Men's Size from 38 – 50**

Women's Size from 34 – 42

Children's Size from 29 – 36

As a result, the shoe sizing more closely mirrors the EU system.

Materials

Vibram Five Fingers Shoe comprise many different materials that vary depending on the style of shoe. The most common components are Vibram TC-1 performance rubber, which makes up the sole of these shoes, a thin stretch polyamide comprising the frame of the shoe that molds to the contours of the user's foot, and an antimicrobial microfiber foot bed.

Ref : <https://en.wikipedia.org/wiki/Vibram>

Solidaridad ASIA

Solidaridad Network is a global civil society organization providing efficient, scalable and economically effective and innovative sustainability solutions in various agricultural and industrial commodities such as:



Solidaridad Asia has more than 320 sustainability experts operating from 26 offices in 9 countries and has also pioneered development and implementation of national sustainability standards in the region.

Solidaridad initiated its efforts in the leather cluster in late 2017 with the Kanpur-Unnao leather cluster. Within 2 years of inception, we have started our efforts in Kolkata and Bangladesh Leather clusters. Through tailor-made programs, Solidaridad has tried to address the following components:

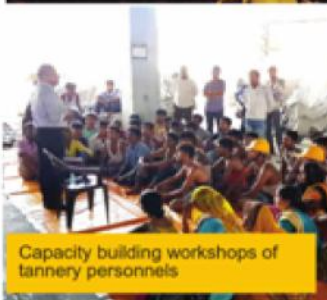
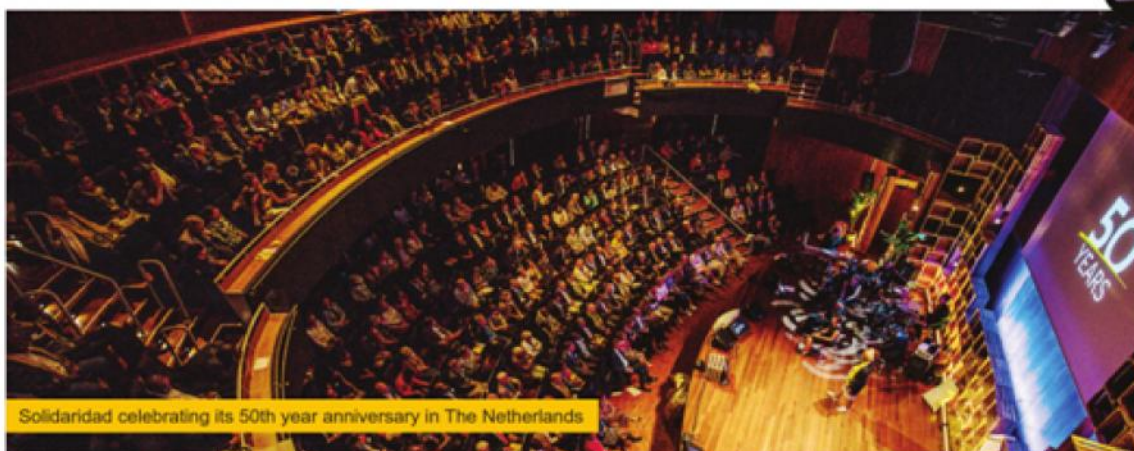
KEY COMPONENTS



SUSTAINABLE WAY FORWARD IN THE LEATHER CLUSTERS ACROSS INDIA



Solidaridad ASIA



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 Contact: 011-45134500, +91-9818311450

Solidaridad signs Memorandum of Understanding (MoU) with CLCTA, Stahl and PUM for sustainable growth of Kolkata Leather Cluster



- ♣ Management and utilization of waste generated during leather manufacturing into value added products
- ♣ Waste management during leather processing by adoption of water and chemical saving technologies thereby reducing the pollution within the Tanning process part
- ♣ Capacity building and skill upgradation of the workers to adopt better practices
- ♣ Capacity building of the Tannery personnel to adopt best practices with reference to Occupational Health and Safety

On 11th December 2019, Solidaridad Asia signed a Memorandum of Understanding (MoU) with Calcutta Leather Complex Tanners Association, Stahl and PUM Netherlands Expert to jointly work towards the common goal of waste management in the tanning industries. The MoU signing ceremony took place at the Bengal Business Conclave in the presence of the Hon'ble Chief Minister of West Bengal, Smt. Mamata Banerjee; Finance, Industry & Commerce, MSME & Textiles Minister of West Bengal, Shri Amit Mitra and representatives from 20 Consulate Generals, including Ambassador of the Netherlands, dignitaries from the Bengal industries, foreign delegates from UNIDO and World Bank to India.

The MOU envisions that the Dutch consortium (Solidaridad, Stahl and PUM) and CLC Tanners Association in close coordination with Government of West Bengal cohesively work for the sustainable growth of the cluster through reducing the pollution load and water consumption in the cluster by adoption of eco-friendly technologies and practices. The targeted areas of interventions under MoU are as follows:

The key signatories of the MoU are:

The Calcutta Leather Complex Tanners Association (CLCTA) represents over 400 MSME tanneries of the Bantala Cluster which primarily manufacture and export finished leather articles. With its motto of 'Think Leather, Think Bengal', CLCTA shares the vision to create India and Asia's largest and most integrated leather complex with state of the art Common Effluent Treatment Plant.

Solidaridad Regional Expertise Centre is part of the global Solidaridad network, which has its secretariat in the Netherlands and is a major international driver of sustainable and fair production and consumption practices in different agri-food sectors, including leather. Solidaridad has been implementing flagship initiatives on waste and water management in Kanpur-Unnao Cluster under the project "Pollution prevention and efficient water use in the Kanpur-Unnao Leather Cluster" and also promoting safe use of chemicals in Bangladesh leather tanneries. With this MoU, Solidaridad can scale up its activities in Bantala Leather Cluster in Kolkata.

Stahl Holdings BV and its affiliates are a global supplier of chemicals to the leather industry with its headquarters in the Netherlands and will provide technical assistance, inputs and lab testing support. Stahl is globally working to promote sustainable practices and circularity and has proven green products and processes which will help to reduce the pollution load and environmental footprint in the leather industries as well.

PUM, Netherlands Senior Experts is a volunteer organization committed to the sustainable development of small and medium-size enterprises in developing countries and emerging markets. They offer practical expertise within the most important sectors of the economy, giving primary attention to producers and consumers.

At this occasion, **Mr. Tatheer Zaidi** (Program Head, Leather and Dairy- Solidaridad Asia) briefly introduced the current initiatives of Solidaridad Asia in leather sector in coordination

with Stahl and PUM which was received with great appreciation and generated further interests in the public and private stakeholders.

Mr. Imran Khan, Secretary General of CLCTA opined that this collaboration with the Dutch consortium (Stahl, PUM and Solidaridad) will have a positive impact on the sustainability of the Kolkata leather cluster and will complement CLCTA's vision of creating Asia's largest leather complex with state-of-the-art technology and sustainable practices.

Solidaridad has initiated few interventions in Kolkata Leather cluster. With this MoU signing and also the support received from Government College of Engineering and Leather Technology, ILTA, ILPA and other key stakeholders, Solidaridad will receive greater impetus to conduct their activities for the sustainable way forward of the Kolkata Leather Cluster.



Solidaridad



Symposium Articles :

**RECENT SOUTH AFRICAN DEVELOPMENTS IN RAPID
WATTLE SOLE LEATHER TANNAGE**

S. G. Shuttleworth

Leather Industries Research Institute, Rhodes University, Grahamstown.

SUMMARY

It is submitted that the tanning industry, facing fierce competition with synthetic materials, will not be greatly assisted by rapid tannages achieved by the sacrifice of quality or by the use of additional materials in quantities which add more cost than the economy effected through savings in time.

Low cost, high quality rapid sole leather pit tanning processes are proposed which are based on the following findings :—

- (a) For a given series of liquors speed of penetration is inversely proportional to tan fixation and firmness, which are determined by the set of the fibre structure at the moment of first contact with liquor. For quality leather, this initial set should take place in pits and not drums.
- (b) Comparisons of various acids and various acid/salt ratios show that sufficient plumpness of fibres can be obtained for high quality by using a mineral acid, provided the salt content of the liquor is low enough.
- (c) Considerations of colour and tan oxidation dictate a low pH of tannage, e.g., pH 3.0—3.5.
- (d) The initial tannage of the grain must be mellow to prevent harshness and case hardening. This requires a high salt/acid ratio.
- (e) The acid binding capacity of the hide can be used as an acid reserve by deliming in a cheap mineral acid/salt pickle without adding acid to the pits. This reserve does not operate for the salt, which is only carried forward in quantity to the first tan liquor, where it is useful in providing a mellow tannage of the grain.
- (f) Swelling of the acid fibres in subsequent salt free liquors enhances speed of tannage by drawing in liquor.
- (g) Contrary to popular belief, the nearly spent tan liquors contain a higher proportion of astringent tannins than the unused liquors, owing to the accumulation of larger tan molecules unable to penetrate the hide, but avidly absorbed by the untanned surfaces of the hides, especially if the surface hide fibres have been opened up by a rapid liming process. A small quantity of polymeric phosphate added to the pickle reduces blockage of the surface channels by astringent tan particles and improves colour.
- (h) Handlers and layers are of negligible value with liquors which do not form phlobaphenes, serving mainly to increase the concentration of unfixed tans, which can equally well be achieved in the drum.
- (i) Hot pitting can be used to increase firmness and fixed tans. The modern method, however, is to use chemical tan fixing agents in the filling drum prior to addition of filler.
- (j) Summaries are given of physical and chemical tests carried out on 2,760 samples of leather tanned in accordance with these findings.
- (k) The Liritan Rapid Sole Leather process is described and advantages outlined.

F. 1—L.



INTRODUCTORY

Sole leather tanners throughout the world are facing fierce competition with synthetic materials and leather chemists are being called upon to convert this time honoured art into a modern chemical process. Many rapid processes have been proposed and some of these have found large scale application.

In the extreme example of the two minute tanning process (1), the pelt is dehydrated and then permeated with vegetable tannins dissolved in a solvent, followed by immersion in aqueous solution to activate the tannin. For a plump sole leather it would be necessary to accomplish the dehydration without collapse of structure. The cost of dehydration makes this process of doubtful economic value.

A very rapid dry tanning process which makes use of powdered wattle extract, elevated temperature, and drums has been described by FIKSL (2) and involves drumming completely delimed unswollen hides in powdered extract for 24 to 48 hours, using slow moving drums. Our experience with this process is that plumping prior to tannage produces a tendency to drawn and pebbled grain, so that high quality leather is difficult to achieve. The method is very economical and has the great advantage of 100% utilisation of tans.

Many other rapid tanning processes recommended in the literature involve setting the fibres in an unswollen condition which enables strong tan liquor or powdered extract to be drummed in without danger of pebbling. A process which has been recommended by the writer (3) for medium grade leather, involves the use of a standing acid/salt pickle followed by five suspenders, the bottom two of which contain 5% salt to set the grain in a flat condition. These suspenders are followed by drum tannage. The salt in the standing pickle is controlled by daily Barkometer or Baume measurement, while the acid is added in sufficient quantity to give a pH of 3.0 after completion of 24 hours deliming. No pH adjustment of liquors is required.

A modification in the above method could be the use of a bisulphite or alternative deliming process, but the leather obtained is likely to be less firm than the above method, which carries protein bound acid forward to drop the pH of the later salt free liquors.

HUMPHREYS, ATKINSON and BLACKFORD (4) and PETRIE (5) have suggested the use of bisulphited wattle to assist penetration. Adapting this to the above method would require the addition of 1% bisulphite to the top suspenders followed by steaming for 6 hours, or the use of bisulphited wattle entirely in the suspender run. Less salt would be required, as bisulphiting increases neutral salts.

An alternative method for setting the fibre structures in a condition suited to rapid penetration and easy drumming is to raise the pH value. This is the basis of a method recommended by HOUBEN (6). Completely delimed, fallen hides are given a pretannage in weak wattle liquors at high pH value, or with a syntan. Subsequent tannage is at pH 3.0 in strong liquors.

Most syntans are well endowed with neutral salts and are thus well suited as retanning agents for a completely delimed fallen hide. Their use for rapid

tannage has been recommended by HUMPHREYS, ATKINSON and BLACKFORD (4) who stress the importance of a fully delimed, unplumped hide for rapid tannage by the method of presetting the fallen fibre structure, with a syntan prior to rapid drum or pit tannage in strong wattle liquors.

A process developed at this Institute by WOODHEAD (7) some ten years ago and used with 100% wattle successfully on the large scale ever since combines the advantages of an unswollen hide structure with the use of strong liquors which diffuse more rapidly. As originally developed, this process was based on a six day system of 100°Bk. liquors adjusted to pH 6.5 followed by a fixing bath at pH 3.0 in 120°Bk. epsom salts which prevents tan loss and ensures good tan fixation. The problems of liquor disposal and oxidation of tans at this high pH if liquors are re-used, have led to modification of the Wood-head process.

Practical experience with this method has shown that a pH of 5.5 works just as well as 6.5, and that a pretannage of the butt grain surface in the weak belly liquors at pH 4.5 is an advantage in catering for any lime carried forward and in setting a smooth grain in mellowed spent tans. Further suggestions are that the pH of the fixing bath is best adjusted with oxalic acid which is a good buffer and also removes iron stains.

A process which has attracted considerable interest in recent years has been the use of the phosphate pretannage for setting the fibre structure, followed by drumming in concentrated tan liquors. LINDER (8) has studied the action of sodium hexametaphosphate (Calgon) and the polymetaphosphates on pelt, and shows that phosphate tanned pelts do not acid swell, and that even strong vegetable tan liquors cannot overtan the grain layer. It would appear that the prevention of acid plumping and the mellowing effects of the phosphate on the affinity of the hide for tannin, enables drums to be used for the vegetable tannage which results in greatly enhanced speed. The total tannage can be completed in four or five days excluding deliming and post tanning operations.

The use of metaphosphates and syntans merely to reduce the time of tannage may be difficult to justify. It can be shown that, at present price levels, the use of 5% on hide weight of a material costing 1/- per pound will add nearly five times the amount saved in capital outlay on hides by reducing total tanning process time by two months. Thus the nett effect may well be to increase rather than to reduce costs. This could only be justified by an improvement in quality.

In general it may be said that the tanning industry has better prospects of holding the sole leather market against substitutes in the good quality field, and therefore the position will not be greatly assisted by rapid tannages achieved by the sacrifice of quality or by the use of additional materials in quantities which add more cost than the economy effected through savings in time. Our work has therefore mainly been devoted to the development of economy with quality in pit tanning processes, where drums are used only to achieve an after tannage filling action.



THEORETICAL CONSIDERATIONS

(A) OPTIMUM FIBRE STRUCTURE CONDITIONS :

We have shown (9) that tan fixation is determined mainly by the set of the fibres at the moment of first contact with the liquor, and it is now widely recognised that a high degree of tannage and a firm leather require the tannage of plump fibres. On the other hand it is equally well known that plumping of the fibres closes the passages between the fibres and slows down the rate of penetration. Carried to excess, this can produce the effect of case hardening, where a raw untanned centre streak persists even after prolonged tannage. It seems apparent that the best compromise between these two effects is to set the grain surface in an unswollen condition under mellow conditions followed by a plump setting of the centre fibres for satisfactory firmness and compactness.

In view of the conflict between penetration and high tan fixation it is evident that it is not possible to operate a sole leather tannage under extreme conditions of plumping, even after the grain has been set under mellow conditions. We have shown (10) that sufficient plumpness of fibre can be obtained for high quality by adjusting to pH 3 with mineral acid, provided the salt content of the liquor is low as in wattle. The use of organic acids to achieve further plumping at this pH tended to reduce fixation owing to poorer penetration of the liquors into the centre.

(B) OPTIMUM TAN LIQUOR CONDITIONS :

ROUX (11) has shown that the rate of oxidation and the colour of wattle liquors are lowered considerably by reduction of pH, while recent work by EVELYN (12) has indicated that the viscosity of wattle liquors (and hence probably the molecular aggregation) tends to be reduced by lowering the pH, the effect being more marked in concentrated liquors. These considerations point to an optimum pH of tannage with wattle in the range 3.0 to 3.5.

ROUX and EVELYN (13) have proved that the average molecular weight and astringency of tan particles are greater in the initial suspenders of a normal counter current tanning process than in the stronger liquors, evidently due to the screening action of the hide into which the larger, more astringent particles cannot penetrate. These particles are absorbed on to the untanned surfaces of the fresh hide, accounting for hash grain and blockage of the surface channels. This screening action can be reduced by feeding the partly spent liquors through open textured hide parts such as bellies and shoulders, thereby rendering them more suitable for mellow initial graining liquors. Alternatively, phosphates or syntans may be used to reduce the affinity of the grain surface for these astringent tannins.

In the old fashioned sole leather process, the early tan liquors were required to act as deliming liquors, and a sufficient organic acid content was required to provide an adequate reserve against lime carried forward by the hide. We have shown that the buffering action of the hide itself can be used to provide both this reserve of acid as well as the adjustment of pH of the tan liquors, and that a mineral acid pickle before tannage can be substituted for the addition of organic acid to the tan liquors. The astringency of such low pH tan liquors on the initial grain tannage can be controlled by bringing forward salt from the pickle, in

RAPID WATTLE SOLE LEATHER TANNAGE

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counter current process the salt from the pickle is only carried to the first tan pit, and very little passes to the second tan pit. The acid binding capacity of the hide lowers the pH of the whole liquor series. The result is a tan liquor series optimum for mellow tannage of grain as well as subsequent plump tannage of centre fibres.

(C) TAN FIXATION AND YIELD :

ANDERSON (14) has shown that the reaction between collagen and tannin is a rapid one and that prolonged tannage with non bloom forming extracts in handlers and layers has little effect on tan fixation, but increases yield through increased tan concentration around the fibres. Thus there appears to be little advantage to be gained by prolonging the tannage beyond adequate strike through of liquor when filling for yield purposes can be achieved in the drum.

Increased tan fixation and firmness can be achieved by a series of hot pits operated at low pH and low salt content combined with elevated temperature. Alternative methods for achieving a similar effect are by chemical fixation (15, 16) or by drying out followed by retannage (17). Yield is not a serious problem to the modern tanner, who has an effective range of weight providing materials which can be drummed into the leather after completion of the tannage.

(D) PHOSPHATE PRETANNAGE :

In view of the relationship between pH and phosphate uptake, the efficiency of phosphate pretannage is enhanced by using it in an acid salt pickle which can be kept standing and replenished with phosphate after each pack. In this manner the phosphate required to improve colour and grain texture can be reduced to between 1% and 1.5% of the limed hide weight. Higher phosphate concentrations than these are likely to produce a leather which lacks firmness owing to restriction of plumping of the centre fibres.

THE OSMOTAN PROCESS

This process, developed by us some five years ago, has been successfully and continuously used on the large scale in South Africa and Australia for a considerable period. The process has been designed to combine speed of penetration of the tan liquors with a satisfactory degree of acid plumping, and in this respect it differs from those rapid methods which depend for speed on a fallen fibre structure. At the same time costly auxiliary chemicals are not used, even the defining acid being inexpensive sulphuric acid.

Sulphuric acid is sparingly used for adjusting pH of suspender liquors partly because of its lack of buffering power and partly because its addition to the weaker tan liquors on a large scale tends to cause tan precipitation and increase sludge due to high local concentration. In the Osmotan process this is overcome by utilising the high buffering power of the hide to adjust the pH of the liquors, supplemented if needed, by feeding down from the strong liquors a small amount of acid which can be added to 100°Bk. liquors with little danger of precipitation. By feeding up acid from a sulphuric acid + salt pickle and feeding down a small amount of acid, it is possible to maintain a constant pH of 3.0 to 3.3 with



only an occasional routine check. If additional safety is required, the adjustment of the pH of the 100°Bk top liquor may be achieved with lactic acid instead of sulphuric acid.

If the pickled hides containing acid + excess salt were given a grain tannage overnight and then allowed to plump by washing out the salt, followed by tanning in the usual liquors at pH 3.3, the resulting leather would not differ markedly in character from the old fashioned hemlock tannage (5) nor from the method presently used by many British tanners.

The Osmotan process, however, takes advantage of the fact that, in order to plump, the hide will draw in surrounding solution so that by placing the surface tanned hide in tan liquors of low salt content at pH 3.3, these liquors are drawn in rapidly by the hide, thus greatly speeding up the rate of tannage. In order that the maximum advantage may be taken of this suction effect, it is obviously necessary to have available sufficient tannin in the liquor to saturate the fibres, and so the liquors must be planned to provide this reserve of tannin at the correct moment. The following methods have achieved success in large scale trials.

DETAILS OF THE OSMOTAN RAPID TANNAGE FOR SOLE LEATHER

Method A,

Using drums (Arrows show liquor movement).

TABLE 1

OSMOTAN METHOD FOR 100% WATTLE

Time	Butts	Bellies and Shoulders
1 day	Pickle in $H_2SO_4 + 10\%$ Salt on liquor	Pickle in $H_2SO_4 + 10\%$ Salt on liquor
(About $\frac{1}{2}\%$ H_2SO_4 on limed stock weight usually required in pickle)		
1 day	Grain Tannage pH 3.0 25°Bk	Grain Tannage pH 3.0 20°Bk
1 day	1st Plumping Pit pH 3.1 60°Bk	1st Plumping Pit pH 3.1 30°Bk
1 day	2nd Plumping Pit pH 3.2 67°Bk	2nd Plumping Pit pH 3.2 37°Bk
1 day	3rd Plumping Pit pH 3.3 74°Bk	3rd Plumping Pit pH 3.3 45°Bk
1 day	4th Plumping Pit pH 3.3 80°Bk	4th Plumping Pit pH 3.3 52°Bk

(Arrows show liquor movement)

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Tannage completed by drumming 48 hours in 100°Bk wattle at normal pH.

NOTES :

1. It should be noted that deliming is not usually complete after 1 day in pickle, but becomes complete during the grain tannage.
2. Sufficient salt is carried over from the pickle to mellow the grain tannage.

THE LIRITAN RAPID PROCESS

The effect of the "Osmotan" process described above has been to reduce the time of vegetable tannage to the same as that normally required for soaking and liming. The main objective of subsequent work in South Africa has been to shorten the beamhouse process without interfering with yield or quality.

Over a period of two years, a large variety of soaking and liming processes were tried out, occupying various times from 24 hours to 9 days, and utilising a range of soaking and lime sharpening chemicals. It was found that any treatment tried which involved rapid unhairing and consequent harsh action on the grain surface caused a rapid surface fixation of tans which resulted in a reduced rate of penetration of the tans and a lengthening of the tan process. The poorly tanned centre streak of the hide affected the physical properties, giving rise to increased water absorption, and lower compaction on compression.

Comparative experiments using synthetic tannin and polymeric phosphate to reduce this high tan affinity caused by rapid liming processes, showed that phosphate added in the acid salt pickle gave as rapid a rate of penetration with harsh liming processes as had been achieved with long mellow processes without phosphate. In addition, there was a very marked improvement in colour and feel of the finished leather.

Table 2 gives a summary of results obtained on 2,400 samples of leathers taken from all parts of the butt area and not filled or bleached after tanning.

TABLE 2
EFFECTS OF VARIOUS TREATMENTS ON PHYSICAL PROPERTIES
OF SOLE LEATHER

(Note : These leathers were not filled. Samples covered all parts of the butt area).

(a) *Osmotan Process—No Calgon (1620 samples)*

Liming Method	No of Samples	Rate of Penetra- tion	Leather Yield	Water Absorp- tion	Dry Ridity	Compressibility of Dry Unrolled Leather	
						5000 lbs./ sq. ins.	10,000 lbs./ sq. ins.
3* Mellow 1 week pit limings ..	(180)	Good	Good	42.9%	33.7 Lbs.	6.3%	14.5%
6 Drastic 1 week pit limings ..	(360)	Fair	Good	42.2%	31.6 Lbs.	8.4%	16.2%
4 Long Float 48 hr. drum limings ..	(240)	Fair	Good	43.7%	32.9 Lbs.	6.5%	14.2%
8 drum 6 hr. paste + 42 hour long float limings ..	(480)	Poor	Poor	53.5%	36.3 Lbs.	5.0%	11.2%
6 drum 1 hr. Paste + 47 hour long float limings ..	(360)	Poor	Poor	52.4%	30.6 Lbs.	5.1%	10.9%



Liming Method	No of Samples	Rate of Penetration	Leather Yield	Water Absorption	Dry Rigidity	Compressibility of Dry Unrolled Leather	
						5000 lbs./sq. ins.	10,000 lbs./sq. ins.
Phosphate Osmotan Processes							
2 Mellow 1 week pit limings ..	(120)	Good	Good	43.1%	30.3 Lbs.	7.2%	16.0%
10 Drum $\frac{1}{2}$ hr. paste + 47 hour long float limings ..	(600)	Good	Good	42.4%	34.1 Lbs.	5.9%	14.2%
1 Drum $\frac{1}{2}$ hour paste + 23 hours long float liming ..	(60)	Good	Good	45.4%	36.5 Lbs.	6.2%	13.5%

NOTES :

1. Water absorption determined by 24 hour soak of 2 inch square.
2. Dry Rigidity determined by force required to bend 2 inch square sample clamped on one edge.
3. Compressibility determined by thickness reduction after applying pressure.

The polymeric phosphate used in the second half of Table 2 was Calgon. Experiments carried out on various levels of Calgon showed that initial addition of 2½% on limed hide weight followed by daily replenishment with 1¼% Calgon on limed hide weight gave adequate protection of the grain. The salt content of the pickle could be reduced to 5% and replenished daily by Barkometer or Baume measurement prior to adding the 1¼% Calgon and approximately 1½% sulphuric acid to restore the pickle. Analyses of the leathers showed very good utilisation of Calgon by this method.

A final series of experiments was carried out to compare three commercial types of polymeric phosphate, using both mellow pit 1 week limings as well as a 24 hour beamhouse process as follows :—

24 HOUR BEAMHOUSE PROCESS

Place wet salted hides in slow running drum. Wash $\frac{1}{2}$ hour with two changes of water. Drain. Add 1% sodium sulphide + 2% lime + 5% water. Drum $\frac{1}{2}$ hour. Wash $\frac{1}{2}$ hour. Place in rocker type or agitated lime pit sharpened with 1% caustic soda for balance of 24 hours. Unhairing should be complete after the first half hour, otherwise more sulphide must be used.

The advantages of this liming method, apart from speed, are firstly that one liming drum can be used for a large number of packs, secondly that the sulphide is almost entirely absorbed by the hair and can be handled separately from the main effluent, and thirdly that rounding and sorting can take place before the main liming process which can then be varied according to requirements.

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The results are given in Table 3.

TABLE 3
COMPARISON OF VARIOUS POLYMERIC PHOSPHATES
(Mean of 60 samples in each case)

Phosphate used	Type of liming	Location of samples	Limed Moisture	Tanned Moisture	Tanned Wt. Limed wt.	Yield *
None	Rapid	Butt	70.65%	45.52%	104.5	194.0%
None	Rapid	Belly	76.52%	51.80%	103.9	213.3%
None	Slow	Butt	71.34%	45.91%	111.9	211.2%
None	Slow	Belly	77.15%	53.82%	108.6	219.5%
					mean	209.5%
Calgon	Rapid	Butt	72.44%	47.76%	110.9	210.2%
Calgon	Rapid	Belly	79.15%	56.16%	109.3	229.8%
Calgon	Slow	Butt	72.08%	45.86%	110.6	214.5%
Calgon	Slow	Belly	78.16%	55.42%	110.5	225.5%
					mean	220.0%
Vitrafos	Rapid	Butt	71.89%	45.77%	110.7	213.6%
Vitrafos	Rapid	Belly	78.49%	57.64%	111.3	219.2%
Vitrafos	Slow	Butt	70.39%	42.90%	111.2	214.4%
Vitrafos	Slow	Belly	76.29%	54.09%	110.3	213.6%
					mean	215.2%
"696"	Rapid	Butt	72.04%	46.71%	107.2	204.3%
"696"	Rapid	Belly	77.03%	53.71%	106.4	214.5%
"696"	Slow	Butt	71.08%	45.31%	112.3	212.3%
"696"	Slow	Belly	76.99%	55.63%	110.7	213.6%
					mean	211.2%

* Yield calculated as moisture free leather/moisture free limed pelt.

In the case of Calgon and Vitrafos all samples were thoroughly penetrated after tannage, while there were a number of inadequately penetrated butt samples in the case of the "696" where rapid liming had been used. The analyses of liquors and leathers during tannage revealed a much lower uptake of "696" compared with Calgon and Vitrafos.

It would appear that the more highly polymeric phosphates such as "696" are less satisfactory than polymers of moderate size such as Calgon and Vitrafos.

F. 2—L.



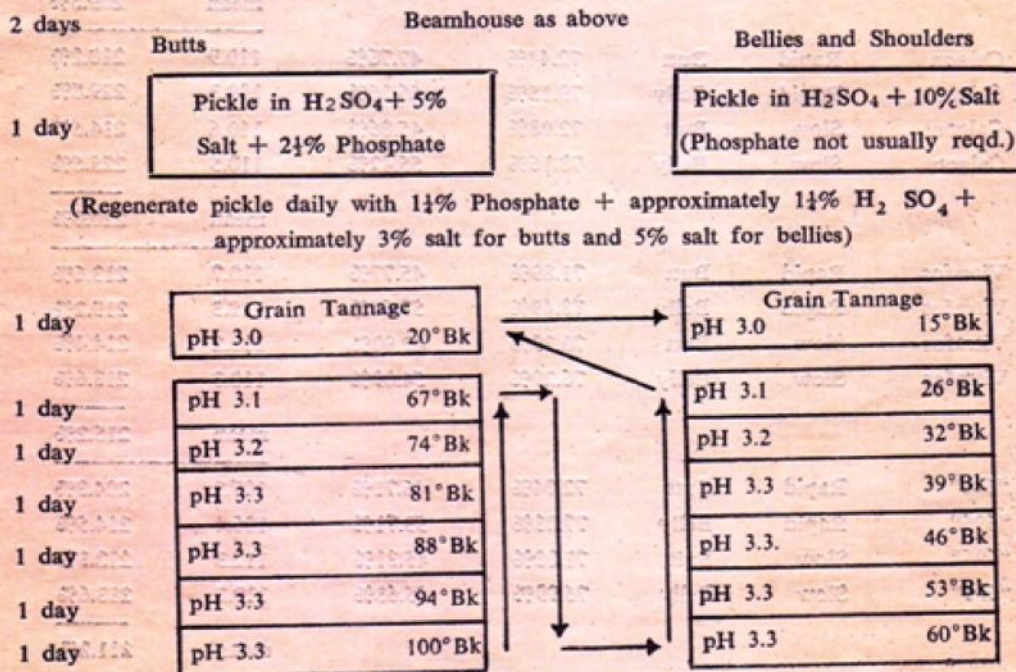
THE LIRITAN WATTLE SOLE LEATHER PROCESS

South African tanners have confirmed the advantages of using a low percentage of polymeric phosphate in conjunction with the Osmotan process, even where a mellow pit liming is used. Improved colour and a finer grain have resulted. The 24 hour liming process cannot normally be achieved on the large scale owing to loss of time in handling. Extension to a 48 hour process can be recommended for large scale trial. The hides are transferred directly from the unhairing drum to a straight lime liquor pit. The following day they are fleshed, scudded and rounded, and placed overnight in a second lime liquor sharpened with 1% caustic soda. Agitation of the lime liquors is very desirable for rapid and uniform liming.

The recommended Liritan process is as follows :—

TABLE 4

LIRITAN RAPID SOLE LEATHER PROCESS COMBINED BUTT AND OFFAL TANNAGE



NOTES:

1. Deliming is not usually complete with heavy hides until after the grain tanning pit. Sufficient acid is carried over from the pickle to take care of this.
 2. pH adjusted in strongest liquors only and by modifying acid added to pickle.
 3. The above system can be combined into a single press over battery of 4 tan pits.
- 1 day. *Fixing and Filling.* Transfer to drum and add chemical fixing agents. Drum 1 hour. Add powdered extract and filler. Drum until absorbed.

RAPID WATTLE SOLE LEATHER TANNAGE

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BUTT TANNAGE ONLY

Although the intervention of the belly and shoulder run has the advantage of spending the more astringent larger tan particles which are screened out by the closely woven butts, the Liritan process is being operated successfully on the large scale by a recirculation method. In order to avoid accumulation of salts it is desirable to take an extra day over the process in order to use two graining liquors as follows :—

TABLE 5
RECIRCULATION PROCESS FOR BUTTS ONLY

1 day	Grain Tannage pH 3.0	15°Bk	↑	←	Press over sufficient liquor and make up with water.
1 day	Grain Tannage pH 3.1	25°Bk			
1 day	pH 3.2	67°Bk	→	→	Recirculate balance of liquor and strengthen with concentrated tan liquor. Adjust to pH 3.3 with acid.
1 day	pH 3.3	74°Bk			
1 day	pH 3.3	81°Bk			
1 day	pH 3.3	88°Bk			
1 day	pH 3.3	94°Bk			
1 day	pH 3.3	100°Bk			

The beamhouse pickle, fixing and filling processes are as described above, and add on a further four days.

A further reduction in handling time and labour can be achieved by maintaining all the six recirculated liquors of the above process at 100°Bk, provided that the suspended hides are separated occasionally by passing a flat wooden blade between them. Such liquors should be discharged when the salt content reaches 1%.

ADVANTAGES OF THE LIRITAN PROCESS

- The deliming and pH liquor adjustments can safely be carried out with low priced mineral acid.
- Maximum value is obtained from the small quantity of Phosphate used.
- The process works well with a pure wattle tannage, which is low in cost per unit of tannin.



- (d) Complete spending of the tan liquor is achieved.
- (e) All the tan liquors are at pH 3.3 so that oxidation of tan is minimised, and a good colour is ensured.
- (f) Although the process is a pit tanning process and not a drum process, the total time from salted hide to drying shed is 11 days. This can be shortened by a further 3 days by introducing a partial drum tannage if desired.
- (g) When the process has settled down it requires very little supervision and control.
- (h) A plump leather of good yield, substance and colour is produced.

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APRIL – NOVEMBER' 2019 FISCAL DEFICIT AT 114.8% OF BUDGETARY TARGET



The budgetary fiscal deficit for the April-November period was Rs 8.07 lakh crore, or 114.8 per cent of the budget estimates (BE). The government has targeted fiscal deficit at Rs 7.03 lakh crore for 2019-20.

As per the Controller General of Accounts (CGA) data released on Tuesday, the fiscal deficit during the corresponding months of the previous fiscal was 114.8 per cent of that year's target.

The Central government's total expenditure stood at Rs 18.20 lakh crore (65.3 per cent of BE) while total receipts were Rs 10.12 lakh crore (48.6 per cent of BE).

Besides, the total expenditure for the period under review comprised Rs 16.06 lakh crore on the revenue account, while Rs 2.13 lakh crore was on capital expenditure.

Total receipts comprised Rs 7.50 lakh crore of net tax revenue and Rs 2.32 lakh crore of non-tax revenue receipts.

(NDTV News – 31/12/2019)

INDIA'S CORE SECTOR GROWTH CONTRACTS 1.5% IN NOVEMBER' 19 – GOVT.



Contracting for the fourth consecutive month, the output of eight core infrastructure industries shrank by 1.5 per cent in November 2019 as five of the eight sectors witnessed negative growth, according to official data released on Tuesday.

The eight core sectors had expanded by 3.3 per cent in November 2018. Production of coal, crude oil, natural gas, steel, and electricity contracted in the month under review.

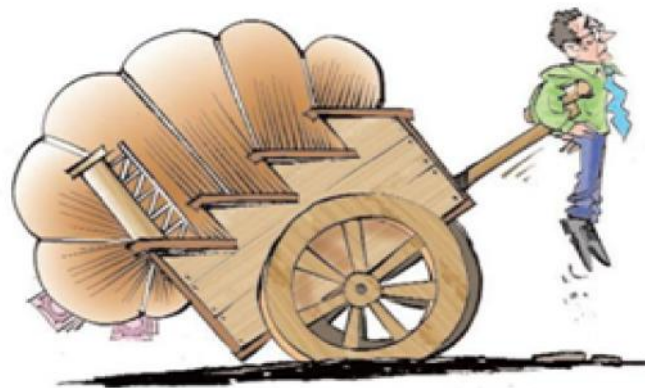
The growth rate of cement production dropped to 4.1 per cent from 8.8 per cent in November 2018. The output of refinery products and fertilizers increased by 3.1 per cent and 13.6 per cent respectively in November 2019 over the year-ago month.

During the April-November period, core industries recorded flat growth (zero per cent) against 5.1 per cent in the year-ago period.

Since August the eight core sectors are recording negative growth.

(Business Standard – 31/12/2019)

ECONOMIC SLOWDOWN : WHAT WILL IMPACT DEMAND AND EXPORTS – DIND OUT HERE



Continuing with the premise that liquidity issues have afflicted Indian economy and therefore the regular production trend of the commodity sector, a few more data by the Reserve Bank of India (RBI) have come to light.

Total credit growth by scheduled commercial banks (public and private) has gone up 8.7% in September, slower than 13.2% growth observed in gross loans and advances in March. It is important to note that the credit growth by public sector banks (PSBs) has, in fact, gone down by 4.8% (y-o-y) in September, and the growth in credit by the entire banking sector has been made possible by 16.5% credit growth by other private sector banks. This raises the question if the PSBs have become more risk averse compared to their private counterparts in the recent period.

The gross non-performing assets (GNPAs) in the economy has maintained an unchanged ratio of 9.3% during March and September, and is slated to move up to 9.9% of the total advances by September 2020. It is reported by the RBI that the asset quality of the sectors measured by the GNPA ratio stands at 6.3% in the services sector, 10.1% in the agriculture sector and 17.3% in the industrial sector. However, it may be mentioned that in March and September, the annual slippages in all sectors have come down. The slippage ratio has, in fact, increased in segments like textile, rubber and plastic, and construction, and by a lesser extent in segments like infrastructure, basic metals and mining.

The deterioration in asset quality in construction as well as infrastructure sectors has adversely affected the credit growth in these sectors, which continue to remain the highest category accounting for nearly 68% of steel consumption growth. In addition, the GNPAs from non-banking financial centres (NBFCs) have gone up from 6.1% in March to 6.3% in September. This has impacted credit flows to the SME sector, which accounts for nearly 47% of domestic steel availability.

The lowering of the growth rate in NPAs may not, however, conclusively point to a revival of market sentiment as the risk surveys conducted by the RBI do indicate that perceptions on fiscal risk, corporate sector risk and banks' asset quality risk have marginally moved up in April and October. The risk survey has also signalled that resolution of legacy-bad assets, under the Insolvency and Bankruptcy Code, have proved to be essential to enable banks to support the current aspirations to economic growth in the country.

At this stage, it must be mentioned that global risk elements, specifically with regard to economic growth (global GDP for 2019 currently projected at 3.0% as compared to 3.2% projected in April by IMF), global trade growth currently estimated to grow by 1.1% in 2019 as opposed to 2.5% envisaged earlier do indicate that global growth and trade are the two important parameters determining export growth.

The total merchandise exports from India have exhibited de-growth of 2% in April to November against 10.9% rise last year. However, in case of the steel sector, despite the rising concern over continuation of trade wars between China and the US that has adversely impacted steel exports from the export-oriented countries/blocks, viz. Japan, EU, Russia, South Korea and Turkey, India has emerged as a net steel exporter during April-November period.

While total imports during the period stood at 5.35 MT by the end of November showing a decline of 11.8% (0.72 MT lower compared to last year), the total steel exports at 7.51 MT indicating a rise of 28.0% (1.64 MT more compared to last year) shows that India has become a net exporter by 2.16 MT by the end of November. If the current growth rate in exports and imports are maintained in the next four months, India would end FY-20 by being a net exporter with 3.24 MT of steel.

Indian steel producers must continue to make maximum efforts in raising exports to countries like Vietnam, the UAE, Italy, Belgium, Nepal, and of products like HRC, coated sheets, CRC, plates, wire rods, billets etc. Higher exports would enable higher capacity-utilization as well as higher realization in tune with increasing global prices (Chinese export price of HRC SS 400 fob Ex-Tianjin at \$483/t in December rising from \$ 427/t in October).

It is argued that while poor growth in credit from the SCBs is dominated by the Gross NPAs reflected in their balance sheets, it is also influenced by the strength of demand for credit. The RBI survey shows that large corporate houses, being liquidity-rich, have limited credit needs and as this sector has a major share in investment, the adverse impact on reviving investment is established. However the missing link is the demand growth in the economy, which would pave the way for investment from the corporate sector. Also, public investment infrastructure is to take care of the larger risks of return even at the cost of a few more per cent of GDP and it must precede the flow of investment by corporate in real estate, consumer durables, logistics and capital goods sectors.

(Financial Express – 31/12/2019)

INDIA HOPES TO CONTINUE FDI GROWTH STORY IN 2020 (!) – GOVT'S LIBERALIZED NORMS MAY MAKE COUNTRY OPTIMISTIC





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Secretary in the Department for Promotion of Industry and Internal Trade (DPIIT) Guruprasad Mohapatra said that despite a slowdown in the global economy, inflows of foreign investment into the country have not been impacted.

Enthused by a record foreign investment inflow, India is optimistic of continuing to be one of the world's favourite FDI destinations in 2020 on the back of the Modi government's liberalised norms and a significant jump in the ease of doing business ranking. Secretary in the Department for Promotion of Industry and Internal Trade (DPIIT) Guruprasad Mohapatra said that despite a slowdown in the global economy, inflows of foreign investment into the country have not been impacted. India received a \$27.2-billion foreign investment in the first half of 2019 and the pace is said to have sustained thereafter.

The healthy growth in the overseas investments is proving that there is a lot of optimism and enthusiasm about India as a foreign investment destination, he said. He added that all the ministries, departments and states are working to address issues and providing stable policies to facilitate entry of foreign companies. "FDI growth has been very good this year and I am quite hopeful that with these policies and initiatives, India's FDI story will continue unabated and continue to grow at a healthy rate," Mohapatra told PTI.

The secretary also said that there is a need to pursue this narrative strongly in 2020. "Ease of doing business is very critical for FDI. Foreign companies look into the World Bank's ranking and they have been very impressed with India's much-improved ranking so far. Our target is to go into the first 50th," he said. Mohapatra said that improvement in the business environment gives a pleasant experience to foreign investors as it helps in making processes easier. "Some of the states are also wooing investments. So we need to further work on the areas in which the investments ...are coming and see how quickly and seamlessly, we can give them approvals. These are the challenges and we are working on that," he added.

When asked about the global companies which are looking to shift their bases from China to India, he said the government is focusing on those firms which are looking at India as a second investment destination. "We know which companies are keen to invest in India and we are looking at them to see what help we can provide in terms of hand-holding, and in terms of

support," the DPIIT secretary said. In the World bank's doing business report, India's rank has improved to 63rd this year among 190 economies from 77th last year.

The department is also holding a series of meetings to further relax foreign direct investment norms in the coming months in areas like AVGC (animation, visual effects, gaming and comics), and insurance. Although, the FDI is allowed through automatic route in most of the sectors, certain areas such as defence, telecom, media, pharmaceuticals and insurance, government approval is required for foreign investors. Under the government route, the foreign investor has to take prior approval of the respective ministry/department. Through the automatic approval route, the investor just has to inform the RBI after the investment is made.

There are nine sectors where FDI is prohibited and that includes lottery business, gambling and betting, chit funds, Nidhi company, real estate business, and manufacturing of cigars, cheroots, cigarillos and cigarettes using tobacco. This year, the government has relaxed FDI norms in several sectors like single-brand retail trading, contract manufacturing, coal mining, and digital media. Further, the DPIIT is working on two major policies – new industrial policy and national e-commerce policy – which are expected to be announced by March 2020. "We are working on both these policies very actively," Mohapatra said.

The new industrial policy is aimed at promoting emerging sectors, reducing regulatory hurdles and making India a manufacturing hub. Experts too said that the government would continue with the FDI liberalisation this year to attract global players. "The government will continue with the FDI relaxations in more sectors," Rajat Wahi, Partner, Deloitte India, said. In 2019, the department has been renamed as the DPIIT from the Department of Industrial Policy and Promotion (DIPP) with a mandate to deal with matters related to the promotion of internal trade, including retail trade, the welfare of traders and their employees, facilitating ease of doing business and start-ups.

The matters related to internal trade were earlier under the domain of the Ministry of Consumer Affairs. Regarding FDI in the e-commerce sector, allegations were levelled against global players like Amazon and Flipkart by the Confederation of All India Traders (CAIT). The domestic trader's body alleged that these companies follow unethical practices by indulging



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in predatory pricing and violating FDI rules. The ministry asked e-commerce companies to follow the FDI rules in letter and spirit as crores of small traders are engaged in the retail sector.

In the April-June period of the current fiscal, overseas investments increased by 28 per cent to \$ 16.3 billion. In 2018-19, total FDI into the country stood at \$ 62 billion, an increase from \$ 60.1 billion in 2017-18. India mainly attracts investments from countries like Mauritius, Singapore, Japan, the UK, the Netherlands, the US, Germany, Cyprus, France, and the UAE. The sectors that received maximum FDI include services,

computer hardware and software, construction development, trading, automobile, pharmaceuticals, chemicals, and power. The commerce and industry ministry has also started ranking of states on their ease of doing business. It has also decided to help the states undertake a similar exercise for their respective districts. FDI is important as India would require huge investments in the coming years to overhaul its infrastructure sector to boost growth. Healthy growth in foreign inflows helps maintain the balance of payments and the value of the rupee.

((Financial Express – 30/12/2019))

Read and Let Read :-

-: JILTA :-

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ILTA PUBLICATION

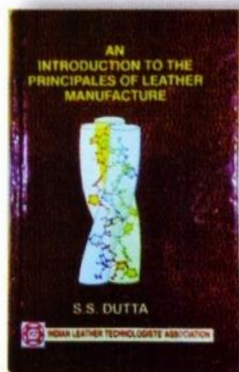
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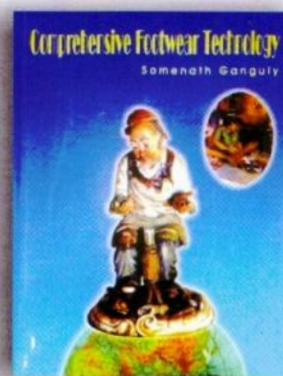
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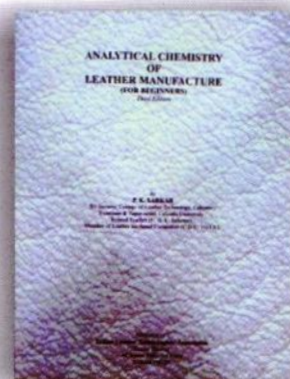
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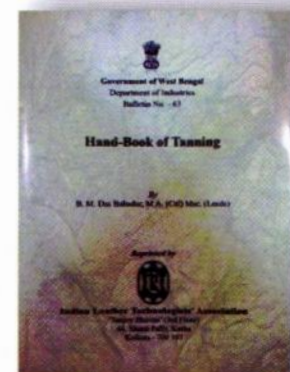
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Title of the Book
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Author
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Send your enquiries to :

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E-mail : admin@iltaonleather.org; mailto:ilta@rediffmail.com

Website : www.iltaonleather.org

History and Activities of Indian Leather Technologists' Association

The Indian Leather Technologists' Association (ILTA) was founded by Late Prof. B. M. Das, the originator of Das-Stiasny theory and father of Indian Leather Science on 14th August 1950.

The primary objectives of the oldest Leather Technologists' Association which celebrated its Diamond Jubilee year in the 2010, are

- ♦ To bring all concerned with the broad spectrum of the leather industry under one umbrella.
- ♦ To organize seminar, symposium, workshop in order to create information, knowledge and latest development for the benefit of all concerned. To offer a common platform for all to interact with each other in order to understand each other's problems and prospects.
- ♦ To publish monthly journal as a supplement to those above objectives. The monthly journal of ILTA is known as journal of Indian Leather Technologists' Association and is the most widely circulated technical journal concerning leather technology.
- ♦ To publish text books for the benefit of students at various levels of study, for the researchers and industry.
- ♦ To have interface between urban and rural sector.
- ♦ To assist Planning Commission, various Government Institutions, Ministry and autonomous bodies to formulate appropriate policies acceptable and adoptable to the industry.
- ♦ To organize practical training and to provide skilled manpower and to motivate good students for study.
- ♦ To conduct activities related to the growth of the export of leather and leather goods from India.
- ♦ As the part of many social activities ILTA has donated Rs. 1 lac to Consul General of Nepal towards relief of earthquake effected of Nepal on 15th Sept, 2015.

INTERNATIONAL & NATIONAL SEMINAR

- ♦ ILTA is the Member Society of International Union of Leather Technologists & Chemists Societies (IULTCS), a 115 years old organization and for the first time the IULTCS Congress was organized in January 1999 outside the developed countries in India jointly by ILTA and CLRI.
- ♦ 2017 IULTCS Congress is scheduled to be held in India again.
- ♦ 8th Asian International Conference on Leather Science & Technology (AICLST) was organized by ILTA in 2010 during its Diamond Jubilee Celebration year.

SEMINAR & SYMPOSIUM

ILTA organizes Seminar & Symposiums on regular basis to share information, knowledge & latest development and interactions for the benefit of all concerned. Few are as under :

- ♦ Prof. B. M. Das Memorial Lecture every year during the Foundation Day Celebrations on 14th August every year.
- ♦ Sanjoy Sen Memorial Lecture on 14th January every year, the birthday of our late President for several decades.
- ♦ Prof. Moni Banerjee Memorial Lecture on 15th March every year, the birthday of this iconic personality.
- ♦ Seminar on the occasion of India International Leather Fair (IILF) at Chennai in February every year.

It has also organized :

- ♦ Prof. Y. Nayudumma Memorial Lecture.
- ♦ Series of Lectures during "Programme on Implementing Emerging & Sustainable Technologies (PriEST)".
- ♦ Seminars in occasion of India International Leather Fair, 2014 and 2015 at Chennai etc. Many reputed scientists, industrialists and educationists have delivered these prestigious lectures. Foreign dignitaries during their visits to India have addressed the members of ILTA at various times.

PUBLICATION

ILTA have published the following books :

- ♦ An Introduction to the Principles of Physical Testing of Leather by Prof. S. S. Dutta
- ♦ Practical Aspects of Manufacture of Upper Leather by J. M. Dey
- ♦ An Introduction to the Principles of Leather Manufacture by Prof. S. S. Dutta
- ♦ Analytical Chemistry of Leather Manufacture by P. K. Sarkar
- ♦ Comprehensive Footwear Technology by Mr. Somnath Ganguly
- ♦ Treatise on Fatliquors and Fatliquoring of Leather by Dr. Samir Dasgupta
- ♦ Synthetic Tanning Agents by Dr. Samir Dasgupta
- ♦ Hand Book of Tanning by Prof. B. M. Das

ILTA has a good Library & Archive enriched with a few important Books, Periodicals, Journals etc.

AWARDS OF EXCELLENCE

- ♦ ILTA awards Prof. B. M. Das Memorial, Sanjoy Sen Memorial, J. M. Dey Memorial and Moni Banerjee Memorial Medals to the top rankers at the University / Technical Institute graduate and post graduate levels to encourage the brilliants to evolve with the industry.
- ♦ J. Sinha Roy Memorial Award for the author of the best contribution for the entire year published in the monthly journal of the Indian Leather Technologists' Association (JILTA).

LEXPOs

To promote and provide marketing facilities, to keep pace with the latest design and technology, to have better interaction with the domestic buyers, ILTA has been organizing LEXPO fairs at Kolkata from 1977, Siliguri from 1992 and Durgapur from 2010. To help the tiny, cottage and small-scale sectors industries in marketing, LEXPO fairs give the exposure for their products. Apart from Kolkata, Siliguri & Durgapur, ILTA has organized LEXPO at Bhubaneswar, Gangtok, Guwahati, Jamshedpur and Ranchi.

MEMBERS

The Association's present (as on 31.03.2018) strength of members is more than 600 from all over India and abroad. Primarily the members are leather technologists passed out from Govt. College of Engineering & Leather Technology, Anna University, Chennai, Harcourt Butler Technological Institute, Kanpur, B. R. Ambedkar National Institute of Technology, Jalandhar and Scientists from Central Leather Research Institute.

ESTABLISHMENTS

In order to strengthen its activities, ILTA have constructed its own six storied building at 44, Shanti Pally, Kasba, Kolkata - 700 107 and have named it "Sanjoy Bhavan".

This Association is managed by an Executive Committee duly elected by the members of the Association. It is absolutely a voluntary organization working for the betterment of the Leather Industry. None of the Executive Committee members gets any remuneration for the services rendered but they get the satisfaction of being a part of this esteemed organization.



68 YEARS OF SERVICE TO THE INTERNATIONAL LEATHER FRATERNITY



ILTA
Since 1950

Indian Leather Technologists' Association

[A Member Society of International Union of Leather Technologists' and Chemists Societies (IULTCS)]

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