

Tech Talk

Monthly Newsletter by Spectro Group

Director's Desk

We take this opportunity to thank you each one of you for making our Newsletter a success. We are pleased to share with you the new edition of our monthly Newsletter "Tech-Talk" which is designed to be an elemental source for leading information related to developing technologies, ingenious techniques and innovative approaches. This newsletter is contemplated to underline electrifying forthcoming activities and resources of our organization.



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In this Issue

- Editorial
- Brief About Spectro
- **News:** How organic foods are different from conventional foods?
- **Article:** Plastics are not a problem but its degradability
- Spectro Group of Companies

We invite you to a new paradigm created by Spectro to examine the resources on our website which includes our amplifying services using science to harness cutting-edge technology and experience the Spectro difference.

Brief about Spectro

Spectro commenced to serve in the year 1995 and during the span of 22 years, Spectro Group of companies has created a globally recognized position in the field of Testing, Calibration, Auditing, Certification, Training, Inspection, R&D, Special Purpose Equipment Designing & Manufacturing and various other activities. Steadily building a reputation for reliability and fast turnaround, the organization grew rapidly and today we feel proud to have our presence all over the country.

How organic foods are different from conventional foods?

Organic foods: Organic foods are the foods that comply with organic standards by USDA and properly certified for same. Generally, we can say, the products or foods that are grown using old agriculture techniques without using any chemical pesticides or fertilizers.



Benefits of organic foods are:

- More nutrition value or more purity.
- No chemicals, pesticides or any additives that can cause illness.
- Safe from harmful or carcinogenic traces of pesticides.
- Even genetically engineered foods are also not accepted in organic farming.
- It is also good for our farmers and local economy.
- It is believed that organic products are healthier than conventional foods.



Drawbacks of organic foods:

- Organic foods are more costly.
- Organic foods can have a rough taste.
- The certification process for organic foods is costly.
- Obtained in less quantity.
- Organic foods are not always 100% pesticide free as natural pesticides can also be harmful if taken in with the food.

CONVENTIONAL FOODS: The foods that we generally find in the market which is grown on a large scale to meet food needs of all population by use of many scientific techniques and chemical fertilizers to get a good yield.

Benefits of conventional foods:

- A huge amount of foods can be obtained.
- All season foods can be grown under artificial conditions.
- Additives flavours can be added by conventional methods.



Drawbacks of conventional foods:

- Local farmers suffer a lot due to trades of these conventional foods only.
- Pesticides traces in some of the foods can cause severe illness.
- A Huge amount of pesticides and fertilisers are used which can result in these chemicals going into our food cycle.
- Genetically modified foods can cause some allergic reactions and are not widely accepted.

Certified organic foods:

People opting for organic foods which are certified organic to get a healthy life.

To get certified soil and water to the Fields are also tested so that there should be no traces of chemicals.

This process goes for three years soil free from pesticides and herbicides.

Mainly it's all about using chemical pesticides, fungicides and fertilisers that do not degrade and remain in food products which cause health problems.

Harmful effects of pesticides if present in foods over the limit:

- Results in acute toxicity.
- Some of the chemicals present in those pesticides can be carcinogenic also.
- Even natural pesticides can be harmful inside the body and can cause severe illness.
- Pesticides have adverse effects on children.

It is seen in chemical studies that organically grown foods having a very low pesticide levels than conventionally grown foods that are why people are going towards organic foods to be on safer side.

Thus we can say that organic foods after certification become more reliable as safe than conventional foods.

In Spectro, we are also having the facility for testing the pesticides presence or absence in the foods Or a number of pesticides present in the foods.

Plastics are not a problem but its degradability

Plastics are being used in almost everything in our day to day life. All the materials in our houses and offices are made up of plastics.

Plastics are of many types:

1. Used in industries.
2. Used Commercially.



From kid's toys, kitchen appliances to office electronic gadgets, plastic is everywhere. And there is no any problem with that kind of plastics.

The only issue is with disposable plastics like cups, cutlery, and non-recyclable plastic bags. Those plastics which cannot be recycled and also do not get degraded soon. These plastics are non-degradable, but as it is easily available, people use it and throw. We are basically drowning into such kind of plastics nowadays.



Results of using these disposable non-degradable plastics recklessly:

- Huge heaps in dumping sites.
- A large amount of such waste into seas and oceans which are affecting marine life.
- Many stray animals died due to the plastic intake with the food they ate from dump areas.
- Burning of such wastes produces a large amount of toxic gases causing air pollution.

To control this, a ban has been imposed on such kind of plastics in Delhi. This kind of ban has been a success in Himachal Pradesh.

So now Delhi government has also taken a step to reduce such non-recyclable and non-degradable plastics to save the environment.

Laws:

- A registration fee for all the disposable plastic sellers.
- Heavy fine for using such plastics.
- The micron size for some poly bags is increased so that they can be recycled easily.
- Proper management of waste.



But one thing we need to understand is that the severe issue is not plastics, but it's degrading time(as it takes thousands of years to degrade), And if the concept of an alternative arises, we can use:

1. Jute bags or paper bags: It can be a good alternative. Jute bags/paper bags are an Eco-friendly alternative to disposable shopping bags. These are made up of biodegradable fibers.

Advantages of jute bags or paper bags: 1. Eco-friendly. 2. Lesser chemicals used. 3. Durable.

Disadvantages of jute bags/paper bags: 1. Non-washable. 2. Are not waterproof and fall apart when wet. (paper bags) 3. Less durability.

2. Biodegradable or bio-based plastics for disposable use if required: Biodegradable or bio-based plastics: The form of plastics that are made up of plants waste such as corn or soybean, they are made up of cellulose which can be degraded early as compared to non-degradable or petroleum based plastics.

Advantages of biodegradable /bio-based plastics: 1. Carbon emission is reduced in its make and in its degradation as well. 2. Consumes less energy. 3. Lesser landfills area required. 4. Recyclable.

Disadvantages are also there: 1. Need com-posters 2. Engineering issues.

Despite all these disadvantages also it can be a cheap and easily degradable alternative to non-recyclable and non-degradable plastics to avoid environment issue from plastics. So if we have to compare we can use jute bags and paper bags to some extent. But if it comes to a waterproof alternative then for sure we have to use these biodegradable plastics.

As plastics are not a problem, it's degradability is, so if we use biodegradable plastics half of problem will be solved.

We also have the facility to check the biodegradability of plastics using ozone chamber or carbon dioxide evolution tests following ASTM methods.

Major Clients



Our Joint Venture Labs

Spectro Research Lab Ventures (P) Ltd. (Kanpur)
Spectro Testing (P) Ltd. (Jammu)
Spectro SSA Labs (P) Ltd. (Mumbai)
Spectro Global Lab Pvt. Ltd. (Bhubaneswar)

Project Sites

Chennai (Tamil Nadu)
Bhubaneswar (Odisha)
Durgapur (West Bengal)
Patna (Bihar)
Ranchi (Jharkhand)

SPECTRO GROUP OF COMPANIES



DnG Technologies Pvt. Ltd.

DnG Technologies Pvt. Ltd. is one stop source for Automation services. We are promoted by a team of professionals with years of experience in the field of equipment designing & machinery automation



We will be pleased to receive your valuable queries, feedback and suggestions on our email ID: newsletter@spectrogroup.com



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