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ORGANIC GROWTH

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SAVE WATER
SAVE LIVES

Inside

SAVE WATER... SAVE LIVES

Floating on water

The world floats on seawater, which drives the hydrological cycle. Yet the world is heading towards a water crisis. India should ideally be flushed with water, given its annual average rainfall of 1,100 mm, the Himalayan water tower that replenishes rivers and groundwater, its other rivers and the 7,500 km-long coastline. However a mix of natural features and human interventions have left the country oscillating between frequent flood and drought, sometimes both occurring at the same place, albeit at different times.

If we continue in our business as usual way, water will abandon us. It is about realising that we are hurtling towards an unnecessary crisis that can be averted. It is about being involved, by reigniting our relationship with water, being responsible in its use, searching for solutions from our heritage, from science and from technology and developing appropriate policies and programmes. Above all, it is about respecting and managing our resources in a suitable and equitable manner. Or else we will be like the proverbial stone in the African saying. "The stone in the water knows nothing of the hill which lies parched in the sun."

The disregard to the dwindling fresh water resources and unchecked pollution of the oceans and ground water aquifers is threatening the integrity of the ecosystems –Biological (plants, animals and microorganisms)

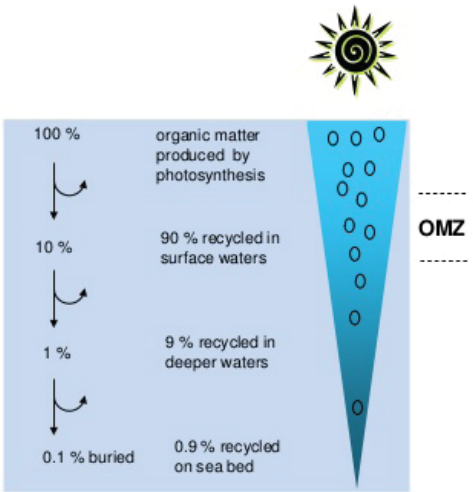
Physical (Soils, air and water). The Organic route which we are advocating is a basket of actions –reductions of Chemical and pesticide loads, sewage treatment plants, the cessation of dumping industrial and urban waste in to our precious water bodies. Preserving our forests and green cover.

To conclude, I am grateful to the communities of the North East who taught me that the relationship between human existence and nature is closely intertwined. I would like to express my gratitude especially to the people of Assam and Meghalaya who have always lived in close harmony with Mother Nature. Lastly I am humbled and indebted to people of this country, communities across different regions of India whose perspectives have greatly built up our understanding on different aspects of managing water.

Ranjit Barthakur, Chairman, APPL Foundation

What is the effect of the water column?

- Surface organic matter descends
- During its passage to the deep ocean, marine organic matter decomposes in the water column, releasing CO_2.
  - 90 % recycled in surface waters
  - 9 % recycled in deeper waters
- Around 1% of this organic matter reaches the sea-bed intact.
- Once incorporated in the sediment, degradation continues
  - Aerobic and anaerobic organisms
- 0.1% of the original surface water organic matter preserved.
- Can be enhanced
  - High primary productivity
  - Accelerated sinking rates
  - Rapid burial
- Low energy, low oxygen environments
  - Several types exist



Effects of Organic Farming on Water Quality

James M. .leffords, Vermont Legislative Research Service

Reducing the effect of agricultural pollution on Lake Champlain is a major issue facing Vermont.

Dairy farms along Lake Champlain use nitrogen and phosphorous to support crop growth through the use of manure and/or purchased fertilizers. Without proper management, these nutrients can runoff into the lake and excess amounts can have a negative effect on ecosystems, fish populations, and human health. The United States Geological Survey has concluded that widespread concentrations of nitrogen and phosphorous are between two to ten times higher than EPA recommended levels for protecting aquatic life.1 Requiring dairy farms to adopt organic farming practices has been one proposed method for reducing lake pollution. This report addresses the efficacy of organic farming as a means to determine if a change from conventional farming will reduce nitrogen and phosphorous pollution in Lake Champlain.

What is Organic Farming?

The United States Department of Agriculture has developed specific requirements for farmers intending to run an organic farm. These regulations contain three categories: crop standards, livestock standards, and handling standards. Some important requirements are: 0 Land must have no prohibited substances applied to it for at least 3 years before the harvest of an organic crop.

- Soil fertility and crop nutrients will be managed through tillage and cultivation practices crop rotations, and cover crops, supplemented with animal and crop waste materials and allowed synthetic materials.
- Preference will be given to the use of organic seeds and other planting stock, but a farmer may use non-organic seeds and planting stock under specified conditions.
- The use of genetic engineering (included in excluded methods), ionizing radiation and sewage sludge is prohibited.
- Producers must feed livestock agricultural feed products that are 100 percent organic, but may also provide allowed vitamin and mineral supplements.
- All organically raised animals must have access to the outdoors, including access to pasture for ruminants. They may be temporarily confined only for reasons of health, safety, the animal's stage of production, or to protect soil or water quality.
- Dairy animals must be managed organically for at least 12 months in order for milk or dairy products to be sold, labeled or represented as organic. (Dairy producers may use land that is transitioning during its third year of transition to organic certification to provide crops and forage for dairy animals during this 12-month period prior to the sale of dairy products as organic.)

How Pollutants Form and Enter Waterways

The major pollutants from dairy farms that affect water quality are nitrogen and phosphorous based. These materials are produced both from fertilizers and from waste produced by livestock. When this waste is exposed to oxygen, nitrates, nitrites, and phosphates are formed.

In addition, ammonia is created when nitrogen and hydrogen combine. These organic chemicals are then carried to bodies of water by runoff caused by erosion and rain water.

As these nutrient levels increase within a water body, excess amounts can cause various problems for the ecosystem. According to the United States Environmental Protection Agency, Nutrient pollution, especially from nitrogen and phosphorus, has consistently ranked as one of the top causes of degradation in some U.S. waters for more than a decade.

Excess nitrogen and phosphorus lead to significant water quality problems including harmful algal blooms, hypoxia and declines in wildlife and wildlife habitat. Excesses have also been linked to higher amounts of chemicals that make people sick.

The chemicals from agricultural runoff tend to increase growth of algae, eventually leading to eutrophication, or the decrease of dissolved oxygen in the water. Eutrophication is the root of many of the problems associated with excess phosphorous and nitrogen runoff and can damage or destroy ecosystems contained within a body of water. In addition, ammonia can lead directly to fish kills.

Methods for Reducing Agricultural Water Pollution Reduction through Conventional Farming According to Laura DiPietro, ARMES Deputy Director at the VT Agency of Agriculture, one of the ways in which conventional farms are managed may help to reduce pollution. In conventional farming, cows are kept "under roof," meaning they are under the shelter of a barn more often than the cows on organic farms. One of the requirements of organic farms is that the livestock remain outside and graze on the land already provided. When cows are under roof, the manure remains in one place and is protected from precipitation events, which enables the farmers to collect the manure and transport it to a single storage unit. It can then be "land applied" at the appropriate time and in appropriate quantities for crop uptake.

The key is to ensure that this manure is land applied appropriately regardless of the type of farming operation, as the risk of nutrient losses to surface water increases when spreading bulk manure at the wrong time. On an organic farm, the majority of manure is distributed throughout the farm landscape by animals directly depositing manure as they graze, however if there are animal holding areas there may also be storage for manure that is then land applied. For grazing animals it is important to regulate the extent to which the cows interact with natural waterways. Access to surface water for the purposes of meeting daily watering requirements and accessing adjacent fields is an approved practice in Vermont, so long as the streambank remains adequately vegetated to minimize erosion. There are perennial, intermittent,

Effects of Organic Farming on Water Quality

and ephemeral streams bisecting Vermont pastures. Where livestock have access to these waters there is an increased risk of nutrient losses to surface water.

There is a public push to require livestock exclusion from all streams in Vermont, which could significantly impact the need for additional infrastructure on organic dairies. A diverse committee of agricultural experts reviewed livestock exclusion in Vermont and determined that it would cost approximately $33,000,000 to provide the appropriate fencing, watering systems and stream crossings to exclude all livestock from all streams for the entire state of Vermont.

Reduction though Organic Farming

In addition to increasing crop yield, organic or bio fertilizer has also been shown to reduce agricultural runoff of nitrogen and phosphorous. Organic and bio fertilizers create carbon rich soils, abundant in microbial activity. The philosophy of organic farming aims to feed the soil rather than the crop by creating rich, healthy soil capable of greater water retention, improved drainage and aeration, and increased resistance to erosion.

A 2008 study, published in the Journal for Sustainable Agriculture studied the effect of applying organic fertilizer with varying levels of supplemental chemical fertilizers to maize both in pots and in field conditions. The study found that in both cases not only were yields and nutrient uptake levels increased significantly with the use of bio and organic fertilizers, but the soil held more water in each year of the study. This finding was supported by the slower mineralization rates of the organic fertilizer.

Another long term study of organic versus conventional farming techniques was conducted at the Rodale institute from 1981-2002. Soil nitrogen, carbon and water levels were measured in each case. One result of the study was that the organically treated soil had greater water content than the conventional counterpart. This supported the claim that organic practices lead to increased water retention. As a result, the soil that was treated organically held more nitrogen and had less runoff of nutrients." Applying organic farming techniques in both studies had a significant effect on the soil's ability to resist runoff and hold nutrients. Therefore, using organic materials can allow for a slower release of chemicals into waterways. This makes managing waste more feasible for farmers.

Aid plea for Hathikuli farm

Amalgamated Plantations Private Ltd (APPL), the second largest tea producer in the country, is moving the Centre to help it sustain its organic initiative at Hathikuli — the largest integrated organic farm in the country.

The tea company, which has 25 gardens in Assam and Bengal, is making this move to take advantage of the Rs 100 crore budget provision made this year to promote organic farming in the Northeast.

A senior company official said as a first move, it is looking to the government to allocate funds from the current year's budget for organic production and will send a detailed proposal.

"This will encourage sustaining the organic movement in the Northeast," he said.

The cumulative loss of going organic at Hathikuli has been huge, which is mainly due to loss of production, he added.

The process of organic transformation was undertaken in 2007 and it was achieved in 2011. "The acreage converted to organic farming is the largest contiguous conversion that has taken place anywhere in the country," the official said.

The 687-hectare Hathikuli tea garden, situated on the periphery of Kaziranga National Park, is certified organic according to the Indian, US, European Union and Japanese organic agricultural standards.


Hatchery at Hathikuli Tea Estate

Hathikuli is known for its CTC, orthodox, green teas and black pepper with a total annual production of 600 metric tonnes.

The teas are being exported to Germany, the US, the UK and West Asian countries.

Hathikuli Tea Garden

The demand for organic food and beverages in the country is huge and estimated at $129.3 million and is expected to grow at a compound annual growth rate of 15 per cent.


Fishery pond at Hathikuli Tea Estate

"We are in the process of educating ourselves and developing organic packages and practices, which will help create a knowledge base for farmers across the world and specifically Assam," the official said.

The company's net profit during 2013-14 reflected a growth of 56 per cent compared to 2012-13. The company held its annual general meeting last month with Ranjit Barthakur as its chairman.

The company has recorded an increase of nine per cent in its own crop harvest as compared to the Assam Valley increase of six per cent.

The company has focused on increasing its volume on operations through sustained development of its tea areas and purchase of bought leaf for conversion. It has also focused on orthodox manufacturing, which has added considerable value to the operations.

The focus on quality has also improved its earnings.

APPL has deployed a fairly large number of mechanical harvesters across 17 estates, as these machines will help in harvesting the crops in time. "This would also help in availability of mandays to do cultivation, as many estates are facing a shortage of workers," the official said.

Organic farming can close the gap on conventional yields

The apparently lower productivity of organic farming systems is caused by research bias, writes Lauren C. Ponisio, and the far greater research spending on 'conventional' agriculture. Funds should be redirected to agro-ecological methods that are highly productive, sustainable and maintain biodiversity.

We can develop highly productive organic farming methods if we mimic nature by creating ecologically diverse farms that draw strength from natural interactions between species.

The unintended consequences of our agricultural food system - polluted air and water, dead zones in coastal seas, soil erosion - have profound implications for human health and the environment. So more sustainable agricultural practices are needed as soon as possible.

Some farmers have turned to less chemically-intensive techniques to reduce the negative impact of agriculture, such as organic farming, which has been shown to outperform conventional farming by many standards of environmental sustainability.

The question is whether we can meet these environmental standards and still meet the demand for food, which is predicted to rise substantially in the next 50 years.

Comparing food systems

In our new study, published in Proceedings of the Royal Society B, we found that organic farming systems, when done right, come close to matching the productivity of conventional systems.

Designing a single experiment that could possibly represent the huge variation in crops, weather and soil necessary to get a complete answer is impossible. Instead, we examined the many specific studies that have already been conducted and combined their results - a meta-analysis.

We compiled studies from across the globe that compared organic and conventional yields over three decades, representing more than 1,000 comparisons of 52 crop species from 38 countries.

This isn't the first time researchers have attempted to answer this question, but previous studies have had conflicting results. Combining studies carried out by different

scientists for different reasons is a big challenge.

Depending on what data is included and how it is handled, answers can vary substantially. Many previous studies found organic yields were 8-25% lower than conventional systems. Another study found that organic farming outperformed conventional in developing countries.

In revisiting this question, we used the most extensive dataset to date and methods that try to account for the complexity of the data.

A mirror to nature

We found that although organic crop yields are about 19% lower than conventional yields, certain management practises appear to significantly reduce this gap.

In fact, planting multiple different crops at the same time (polyculture) and planting a sequence of crops (crop rotation) on an organic farm cut the difference in yield in half. Interestingly, both these practices are based on techniques that mimic natural systems, and have been practised for thousands of years.

Our study strongly suggests that we can develop highly productive organic farming methods if we mimic nature by creating ecologically diverse farms that draw strength from natural interactions between species.

Crop rotation and polycultures are known to improve soil health and reduce pest pressure. Because these practices add diversity to the landscape they also support biodiversity, so they may improve yields while also protecting the environment.

We also found that for some crops such as oats, tomatoes and apples there were no differences in yield between organic and industrial farming at all. The largest yield gaps were found in two cereal crops, wheat and barley.

The 'gap' may be caused by the huge gap in research funding

However, since the agricultural Green Revolution in the mid-20th century, improving the yields of cereals grown using conventional, industrial agriculture has received a huge amount of research and funding - far more than organic agriculture. Little wonder, then, that we see a large difference in yields.

For example, some seeds are specifically bred to work well in the nutrient-rich, pest-free conditions found in conventional farms due to the heavy use of fertilisers and pesticides, so they may underperform in organic farms.

But if we invested in organic agricultural research and development we'd no doubt see a large increase in the yield too.

We also found evidence that the yield gap estimate we and others have calculated is likely an overestimate. We found evidence of bias in the studies we compiled, which favoured the reporting of higher conventional yields relative to organic.

This can arise for several reasons: the studies can favour specific crops or practices so that the results are unrepresentative, or introduce bias during the selection of results to be published. It's impossible to know the origins of the bias, but it's necessary to acknowledge the effect it will have on yield estimates.

Won't solve everything

It's important to remember that simply growing more food is not enough to address the twin crises of hunger and obesity.

Current global food production already greatly exceeds what is needed to feed the world's population, yet social, political, and economic factors prevent many people from living well-fed, healthy lives. A focus solely on increased yields will not solve the problem of world hunger.

To put the yield gap into context, the world's food waste alone is 30-40% of food production per year. If food waste were cut by half, this would more than compensate for the difference in yield from converting to organic agriculture, as well as greatly reducing the environmental impact of agriculture.

Are organic farms more drought resistant?

The supposed productivity gaps between organic and conventional farming may be a lot smaller than thought, according to a new analysis of more than 100 studies conducted by researchers at the University of California, Berkeley. And organic farming may be especially competitive during droughts like the one currently crushing California's massive agricultural sector.

The assertion that organic farms can compete with conventional ones—especially during droughts or other adverse weather—is not new.

Separately, the Farming Systems Trial at the Rodale Institute in Pennsylvania has been comparing the productivity of organic and conventional farms since 1981. The institute uses common organic farming methods in some plots and farms more conventionally in others, using popular pesticides and growing genetically modified organisms. It found that the organic plots outperformed the conventional ones, especially when things turned tough.

The organic plots were especially more resilient to droughts, and other weather events such as frost and flooding.

But of course, the notion that organic farming can feed the world has its skeptics.

"Such claims are absurd," molecular biologist Henry I. Miller said. Miller was the founding director of the FDA's Office of Biotechnology and a supporter of genetically modified foods. He is now a fellow at Stanford's Hoover Institution.

Miller contends that genetic modification techniques have already given us drought-resistant crops, and argues that farmers have turned to conventional methods precisely because they are more efficient.

Some farmers are also skeptical, especially on the water issue. "Our organic producers achieve a yield, generally 40 percent less than conventional producers, but all of them require the same amount of water," said Joel Nelson, a California citrus grower and president of the California Citrus Mutual growers association.

Growth within organic farming sector continues

A recent brief published by the EU Commission confirms that, in the last decade, both the number of organic farms and the area dedicated to organic farming have grown by 50% or more.

Organic area in the EU increased by about 500,000 hectares per year. As a result there are more than 186 000 organic farms across Europe, cultivating an area of 9.6 million hectares. Based on an earlier 2013 report on organic farming, the brief provides an overview of areas and holdings, type of production and characteristics of organic farmers.

Organic production patterns vary between EU Member States. However, across the EU, permanent pasture accounts for the biggest share of the organic area (about 45%) followed by cereals (around 15%) and permanent crops (about 13%). Organic animal production remains limited in comparison with the total animal production in the EU (about 1%).

Organic farm managers tend to be younger than conventional farmers in the EU. In 2010, farmers younger than 55 represented 61.3% of the total in the organic sector but only 44.2% in non-organic agriculture.

In the context of the sector's considerable and rapid growth, the Commission has proposed new updated and adjusted rules for the sector which are currently discussed with the European Parliament and the Council. The proposed new rules seek to improve the current system, so that the sector can grow in a sustainable way and respond to future challenges while keeping its long term relationships with consumers.

In 2011, the EU-27 had a total area of 9.6 million hectares cultivated according to organic farming rules, up from 5.7 million in 2002. During the last decade, the organic area in the EU increased by about 500 000 hectares each year. This is a significant increase, although the whole organic area represents only 5.4% of the total utilised agricultural area in the EU.

In 2010 there were more than 186,000 organic farms across the EU. On average, organic holdings tend to be bigger than conventional farms. Most of organic farms (83%) and organic land (78%) are situated in the EU-15 (the EU Member States that joined the EU before 2004) where national and European legislation, among others, helped stimulate the development of this sector. The countries that joined the EU since 2004 (further called the EU-N122 and not including Croatia) are quickly expanding their organic sector as well: they registered a 13% yearly growth rate in their organic area from 2002 to 2011 and saw their number of holdings increase almost tenfold between 2003 and 2010.

Study Finds Nutritional and Food Safety Benefits of Organic Farming

Organic foods and crops offer more health benefits than their traditional counterparts, according to a Washington State University study. Researchers said that organic fruits and vegetables comprise more antioxidants and fewer, less frequent pesticide residues.

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For the study, the researchers analysed 343 peer-reviewed publications particularly in North and South America and compared the nutritional quality and safety of organic and conventional plant-based foods including fruits, vegetables and grains. Most of the publications examined crops grown on similar soils - eliminating questions surrounding variation in nutritional and safety parameters.

The researchers found that crops grown on conventional fields has higher concentrations of synthetic nitrogen and will divert the extra resources into producing sugars and starches. As a result, the harvested portion of the plant will contain lower amounts of other nutrients including health-promoting antioxidants.

On the other hand, organic crops without the synthetic chemical pesticides generate more phenols and polyphenols to combat pest attacks and related injuries. Overall, organic crops had 18 to 69 percent higher levels of antioxidant compounds.

Researchers said that organic fruit, vegetables, and cereals increase the production of antioxidants by 20 to 40 percent - equivalent to two extra portions of fruit and vegetables a day without increase in caloric intake.

The researchers also found that pesticide residues were three to four times more likely to be present in conventional foods than organic ones. While organic crops do contain pesticide residues, the levels are 10 to 100 times lower when compared to the conventionally grown food.

"This study is telling a powerful story of how organic plant-based foods are nutritionally superior and deliver bona fide health benefits," said Charles Benbrook, a Washington State University researcher and co-author of the paper, in a press release.

Bhutan crew films Sikkim's first organic festival

A Bhutanese film crew is in India to capture the essence of organic villages in south Sikkim, renowned for its organic produce, which are being showcased at the maiden NagiPokhari Tourism and Organic Festival.

Sikkim has set for itself the goal of becoming an organic agricultural state by 2015.

The festival which began Wednesday in Nagi under Namthang-Rateypani constituency, in south Sikkim, is an initiative of Nagi Tourism Development Committee to bring the place - a scenic lake and adjoining villages - to the forefront for domestic and international travellers.

"This is probably the first of its kind in India... it is the first in Sikkim. The constituency tops in terms of producing most of organic produce of Sikkim. It will highlight the organic agriculture of the state as well as the potential of the area for tourism since NagiPokhari (lake) is an unexplored spot," Suresh Lama, media co-ordinator for the event told IANS over the phone.

According to Lama, traditional houses and stalls of each and every community of Sikkim nestled amid pine trees, will provide an authentic experience and knowledge on their food habits and culture.

Organic stalls will serve fresh produce of the south Sikkim constituency.

"Today (Thursday) the Bhutan Broadcasting Services (BBS TV) will film the organic villages. We appreciate what Bhutan is doing to enhance its organic farming sector and organic practices," said Lama.

According to reports, the Himalayan kingdom is keen to become the first country in the world to become wholly organic (food production) within a decade.

The festival will run till Jan 2 and is being widely promoted by personalities like former Indian soccer skipper BaichungBhutia, Arjuna awardee TarundeepRai, Femina Miss India Kolkata 2014 1st runner up ZennlyaBhutia and others.

Apart from display of ethnic cuisines, cultural programs, trekking, bird watching, sports events, fashion shows are also part of the schedule.

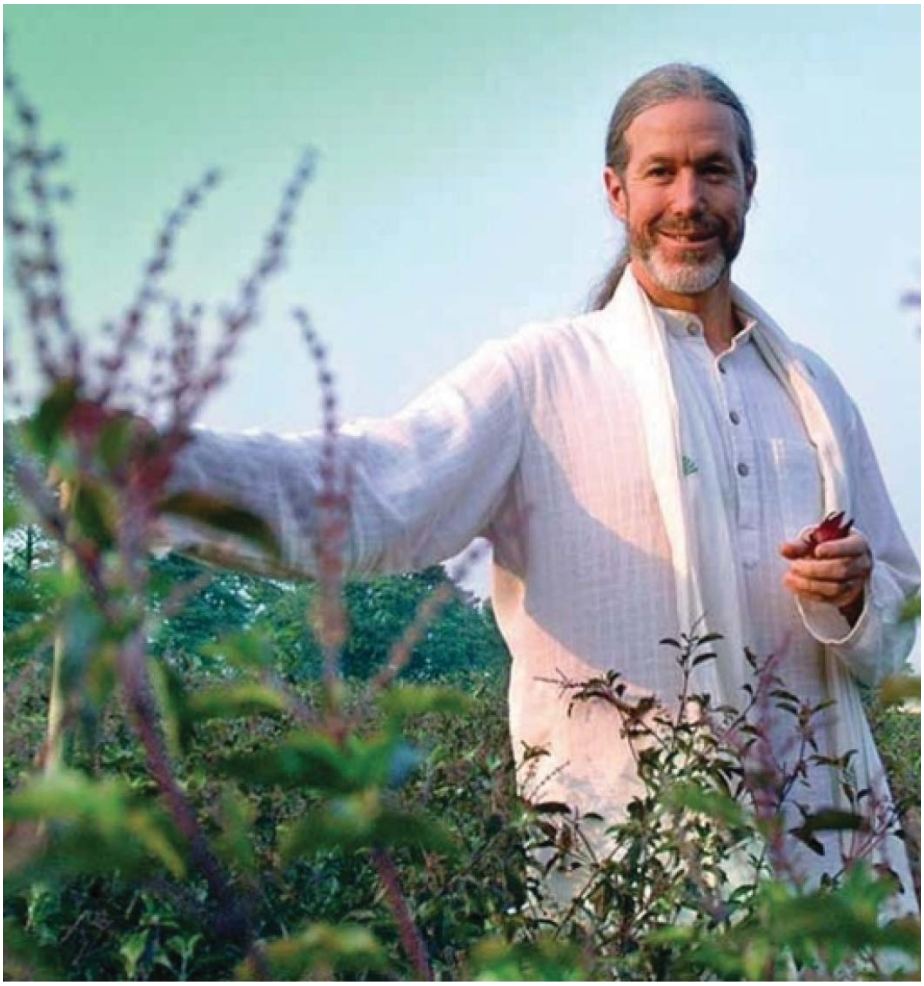
Foreign Desis Club: The Organic India Story

The story of Organic India, a Lucknow-based organic and herbal agricultural products company, seems straight out of a novel or a movie. Yoav Lev came to India in the late 1980s for a journey that had nothing to do with business. He had traveled from the United States to meet H.W.L Poonja, the spiritual teacher. The time Lev spent at Papaji's ashram, as Poonja was fondly called by his disciples, changed his journey for life. Along with a group of people, and encouraged by his spiritual teacher to start a busines in India, Lev, who has since changed his name to Bharat Mitra (friend of India) set up Organic India in 1997.

The idea was to establish a sustainable business model to support the livelihood of thousands of impoverished farmers by providing training and education, and opening markets for herbal products, such as tulsi. Over the past two years, Organic India has grown to a firm with annual sales of Rs150 crore and 300 people. The popularity of its family of herbal products—its flagship tulsi tea, herbal supplements, spices and edible oils—which Organic India exports to more than 35 countries including USA, Canada, Germany and France has given way to what Mitra proudly says is a sustainable, holistic business built on being both environmentally sustainable and socially responsible. All its products meet the stringest testing standards of the many European countries it exports to.

This country has given me so much peace but it also tests my love on a daily basis. It has demonstrated that organic (the practice of growing crops without the use of chemical pesticides, herbicides and fertilisers), biodynamic farming (built on crop rotation and a planting calendar that use the cycles of the moon, the sun and the seasons to determine the best time to plant each crop), and ethical wildcrafting (the practice of harvesting plants from the wild in a sustainable manner, without depleting the population or damaging the habitat of the plants that are being harvested) can help create solid companies. Organic India is now looking at an annual revenue of Rs220 crore by 2015, and has continuously grown at an average 35-40 per cent over the past three years. In early 2013, William Bissell's Fabindia invested in Organic India, and now owns nearly 40 per cent of the company. This equity partnership is helping script a new chapter of growth. Mitra credits his company's success to the ancient wisdom of India. But, wonders why even as consumers across the world are beginning to make buying choices based on ethical values and sustainability, India's business community hasn't kept pace.

"My spiritual search led me to start business in India. This country has given me so much peace but it also tests my love on a daily basis! There is no doubt that there are many, many challenges especially the bureaucracy and corruption. But, equally, there is much to guide you if you so want to be steered. More than the challenges of business, what has dismayed me most over the past decade or so is the enthusiasm with which corporate India is embracing Western values, and ways of operation and approach that doesn't do justice to India. It's devastating to see how big, global companies have changed Indian society; and why we are so willing to bring to organisations interested in making a quick buck here. There was much talk about India being a global economic leader. India can play a major role only if it connected to its core value, if it respects its ancient wisdom, and learns how to integrate that with business. If India will allow globalisation and MNCs to wash over everything it should hold on to, it won't work. India is destined to provide the world with a whole new model of doing business where there is a focus on making profits but by being value-based and ethical. We can teach the world that there is no contradiction between those two."



Going Green with Ashwika Kapur

DO WHAT YOU LOVE AND LOVE WHAT YOU DO... "The biggest 'do' for anyone to be successful in anything is to enjoy what he or she does,' says AshwikaKapur. - Photo by AshwikaKapur

Not keen to go down the feature-film or commercial television route, AshwikaKapur packed her bags and left for Africa to train as a wildlife cameraperson in the savannahs. Ever since, she has travelled extensively across Africa, Asia and Australia.

In a country where filmmakers keep vying for the ever elusive Oscar, 27-year-old, Kolkata, India-born AshwikaKapur has beaten documentary film directors from the US and UK to bag the Green Oscar! Her film Sirocco – How A Dud Became A Stud, won the Panda Award (popularly referred to as the Green Oscar) in the Icon Film Newcomer Award category in Bristol, England, recently.

Daughter of a chartered accountant father and an ex-businesswoman mother, none of whom had anything to do with wildlife, Ashwika says: "I probably inherited my love for animals from my late grandfather, who was the Director of the Zoological Survey of India for many years."

Her interest in wildlife began at an early age when she brought home a duckling at the age of four. Over the time, the family set up a mini zoo at home — pigeons, rabbits, squirrels, macaws, tortoise and more — all housed at the behest of Ashwika.

Having studied at La Martiniere for Girls and St Xavier's College, Kolkata, Ashwika worked as a child artiste in films and later assisted well-known directors behind the camera.

Excerpts from the interview:

KHALEEJ TIMES: What led you to make a documentary that won the prestigious award?

ASHWIKA KAPUR: I was doing my post graduation in science and natural history filmmaking at the University of Otago in New Zealand. The University offers one-of-a-kind course and to graduate, I had to make a documentary.

As a filmmaker, I believe that natural history documentaries should both educate and entertain. So, when I was researching story ideas for my film, I looked for a subject that would strike that balance. I came across kakapo, a very rare nocturnal parrot with only 125 such individuals left on earth. That itself was a significant story, but the case of one particular kakapo called Sirocco, was all the more amazing. Sirocco turned out to be rather unique, as he was convinced that he was a human being! He is a superstar in New Zealand and around the world because of his quirky personality. So, I chose to tell his bizarre life story in the form of a witty and classic rags-to-riches tale.

What's so unique about kakapos and Sirroco in particular?

These flightless parrots are known to live up to 100 years and most of them live on a single, quarantined island in the southern Pacific Ocean. They are world's heaviest parrots and can weigh as much as 3kgs, which makes them look like teddy bears. As for Sirocco, he is

the only bird in the world with a government job and gets his own seat on the airplane, as he is a major tourist attraction! I filmed him at Orokouni Eco Sanctuary, Dunedin in Maud Island, where he lives, and also on the flight while he was traveling.

What difficulties did you come across in terms of getting permission to shoot?

It was no easy task to film a rare species, so I had to meet and convince the Kakapo Recovery Team that I would work closely under their guidance and advice. They are a very sensitive team of conservationists and with their guidance; I managed to shoot the film, without disturbing the animal in any way. Though firm about the rules, they were extremely cooperative and supportive.

Would it be correct to say that wildlife filmmaking is a male dominated field in India? Is the situation any different abroad?

Very rarely does one come across women in the field of wildlife filmmaking. Few pursue it independently or as full time profession. That is true anywhere in the world, but it's more so in India. Being a young camera girl in camouflage does throw up a lot of challenges and curiosity. But then, anyone breaking the stereotype faces tricky situations as I did. And yes, I came across some wonderful people as well, who were in authority. They saw my work and extended their unconditional support. So, I always ensure that my work lives up to the expectations of that support.

Did you face any scary moments while shooting in the forests?

Oh, my very first experience in the wild was quite a classic. I had stepped in Africa for the first time to begin my training as a wildlife filmmaker. After a four-hour rocky ride from the airport to a reserve situated in the Limpoo Province in South Africa, we reached the camp, full of irrepressible energy to leap out of the vehicle and explore the savage setting that was to be home for the next month.

But half an hour later, I realised that in my eagerness, I had left a bag in the car, parked about 5-minutes walk from the campsite. So, while the rest of the group mingled with the rangers, I took an unaccompanied walk back to the parking lot to fetch my bag.

The 'car park' was a small clearing in the midst of thick African bush land, as accessible to wildlife as any other part of the grasslands that surrounded it. I climbed in and out of the car and leisurely walked back to be with the team, only to find a ranger giving instructions to the group. Since I hadn't heard him, I approached him and asked if I had missed anything important. He casually replied, 'Oh no, I was just telling the folks not to go to the car park, as one of the male lions was sleeping under a car.' I went white in the face and informed him that I had just been there! He simply smiled and said, 'Welcome to Africa!'

Are there any do's and don'ts that a budding wildlife photographer or a filmmaker must keep in mind?

The biggest 'do' for anyone to be successful in anything is to enjoy what he or she does. People tend to forget to have fun with their work. A classic 'don't' would be not to get worked up about challenges, as in this kind of field; there will be many challenges, which are just obstacles. And one has to find creative ways to overcome them.

What wildlife film are you presently working on?

I'm working on a Blue Chip Wildlife Show for Animal Planet, which is covering a large number of places in India. I am very excited about it, as it has given me the opportunity to visit many places that I hadn't experienced before. I'm also getting to wear several hats in the production department — working on many aspects of the show including, research, scripting and camerawork.

Any comment on your winning the Panda Award made by a person of repute that you can remember?

I had met British film director Sir Richard Attenborough before the awards. He said, 'If you have chosen the profession you love and you're giving it your absolute best, you will make a difference!'

Only a genius like him could have summed up the entire philosophy of life in such simple, yet powerful words.

Environment-conscious society takes organic route to handle wet waste

The residents of Thane's Tarangan Towers set up a vermi-compost pit on New Year's Eve to turn wet waste collected from their society into manure.

"The vermi-compost pit has been set up with a base of garden waste, fertile soil and earthworms and covered with wet gunny bags to keep the moisture level intact", said DrLeenaKelshikar, a resident of Tarangan Towers. "Everyday, the housekeeping staff will collect the segregated wet waste, lift the gunny bags, add the new waste to the already existing pile and cover it again with the wet gunny bag. This will be done till the pit is full. It will then be kept for 45 days during which the waste is put in the second pit. After 45 days, the manure gets ready for use," she added.

DrKelshikar picked the concept from Kores Society who started a similar project two years ago. The residents of Tarangan Towers sought the assistance of DrLataGhanshamnani, a resident of Kores Society, in their endeavour.

"Two housekeeping staff from Kores came to train the seven housekeepers in our society on how to work around the vermi-compost. Our housekeepers are very excited about the project," said Dr. Kelshikar.

It is easy to blame the civic body for the filth in the city. People should realise that if they start pitching in, then TMC will be able to function more effectively, she added.

"We started segregating our waste into wet and dry four years ago," said ManoharKataria, secretary of the building. "We have one vermi-compost bin now, but are getting three more for the 145 families in our society. We are also making a small garden around it. The manure will be used in the green spaces of the society and the rest will be given to nurseries around."

Organic News

World Scenerio

1. **Organic farmers to get a break on agriculture fees**

http://www.mcclatchydc.com/2014/12/16/250250_organic-farmers-to-get-a-break.html?rh=1

- An organic farming seed planted in the latest farm bill sprouted Tuesday, broadening exemptions from conventional crop promotion fees.
- From almonds to watermelons, the proposed new fee exemptions cover myriad organic crops across different U.S. regions.
- The exemptions also reflect the escalating federal cultivation of an organic agriculture sector that now posts an estimated $35 billion in annual sales.
- "Federal investment in organic has come a long way in the past decade from where it used to be, but it still falls short,"

2. **Popularity of organic crops sparks survey**

http://www.columbiatribune.com/business/street_talk/popularity-of-organic-crops-sparks-survey/article_614f98f6-85bd-5fbb-be18-004c42a7c2d2.html

- The U.S. Department of Agriculture has decided to learn more about organic farming practices across the country, including here in Missouri.
- Between 2007 and 2012, the sale of organic crops grew by more than 80 percent.
- The National Agriculture Statistics Service, or NASS, plans to mail a survey to all known organic farmers in January and ask them about their production this year.

3. **Organic farming techniques are closing gap on conventional yields**

http://theconversation.com/organic-farming-techniques-are-closing-gap-on-conventional-yields-35320

- The unintended consequences of our agricultural food system – polluted air and water, dead zones in coastal seas, soil erosion – have profound implications for human health and the environment.
- Some farmers have turned to less chemically-intensive techniques to reduce the negative impact of agriculture, such as organic farming.

4. **Organic Trade Association gears up far-reaching strategy for 2015 to boost exports**

http://www.prnewswire.com/news-releases/organic-trade-association-gears-up-far-reaching-strategy-for-2015-to-boost-exports-300004455.html

- If Taka Yamaguchi has his way, athletes competing in the 2020 Summer Olympics in Tokyo will be eating organic.
- An ambitious plan that more than 100 of Japan's top grocery retailers, food importers and distributors learned about at a recent Organic Trade Association (OTA) sponsored seminar in Japan.

5. **China goes organic amid food scandals**

http://www.cnbc.com/id/102305047#.

- An organic food craze is emerging among China's urbanites as food safety scandals spur the younger generation toward alternative ways to buy fresh produce and meat.
- So far, organic foods' penetration into China appears small, accounting for 1.01 percent of total food consumption, but that's nearly triple 2007's 0.36 percent.

6. **Christmas trees go organic at New Seasons**

http://portlandtribune.com/sl/243654-111117-christmas-trees-go-organic-at-new-seasons-

- New Seasons is pioneering the sale of organic Christmas trees — grown without the use of chemical fertilizers, pesticides or herbicides.
- The Portland-based grocery chain recently ordered 300 trees that are certified organic by Oregon Tilth and the USDA.

7. **Nebo graziers switch to organic to beat falling cattle prices**

http://www.abc.net.au/news/2015-01-02/nebo-graziers-go-organic-to-beat-falling-prices/5996040

- When cattle prices in Queensland plummeted two years ago, graziers across the state were hit hard, but one couple responded by taking their farm in a new direction.
- Graziers John and Julie Borg decided the best long term solution was to make their whole operation organic.
- The Australian Organic Market Report 2014 found the retail value of Australia's organic food industry was $1.38 billion, and the value of organic beef was $198 million, more than doubling since 2011.

8. **Report shows super-spenders are more reliant on organic search**

http://www.marketingpilgrim.com/2014/12/report-shows-super-spenders-are-more-reliant-on-organic-search.html

- Forrester asked 4,600 US adults this question and I would say "the answers might surprise you" but that would be cliche. Let's just take a look at what happened and see what we can do with the results.
- Organic search landed in the number one spot (no surprise)

9. **Door to Door Organics continues to expand**

Organic News

http://www.thepacker.com/fruit-vegetable-news/Door-to-Door-Organics-continues-to-expand-286001251.html

- Organic online retailer Door to Door Organics plans to expand delivery services to Milwaukee in the spring.
- According to an early December company release, the Louisville, Colo.-based company is using $25 million in investment financing to expand to new markets in 2015, with Milwaukee being the first.

India News

1. **MP accounts for half of country's total organic farming: Govt**

http://www.business-standard.com/article/pti-stories/mp-accounts-for-half-of-country-s-total-organic-farming-govt-114121700354_1.html

- "Madhya Pradesh has maximum of 25.82 lakh hectares under organic farming in the country.
- This is about half of total organic farming area in India," according to an official release issued here today.

2. **Use of organic fertilizers has raised farm yield: Govt**

http://timesofindia.indiatimes.com/business/india-business/Use-of-organic-fertilizers-has-raised-farm-yield-Govt/articleshow/45560427.cms

- Government on Thursday said it is promoting use of organic fertilizers and studies have shown that farm yields have not fallen where use of chemical fertilizers was restricted.

3. **'Hotels should have organic waste plants'**

http://timesofindia.indiatimes.com/city/delhi/Hotels-should-have-organic-waste-plants/articleshow/45745892.cms

- Union urban development minister M Venkaiah Naidu on Saturday pitched for making it mandatory for all restaurants and hotels to have an organic waste plant.
- "It is very important to manage organic waste at source. I will write to the ministry of tourism to make it mandatory in all five- and four-star hotels and eatery establishments to have organic waste plant

4. **Organic farming in all Assembly segments**

http://www.thehindu.com/news/national/kerala/organic-farming-in-all-assembly-segments/article6747476.ece

- To make State fully organic by 2016
- The government has initiated efforts to promote organic farming in all Assembly constituencies.

5. **Finished textile products now under organic certification**

http://www.business-standard.com/article/companies/finished-textile-products-now-under-organic-certification-114121600850_1.html

- The government has made mandatory a certification of any textile product exported as an organic one, under the National Programme for Organic Production (NPOP).
- NPOP certification is already required for raw cotton. It is to now also cover finished organic textile products such as yarn, fabrics, made-ups and garments.

6. **Towards total organic farming**

http://www.thehindu.com/news/cities/Thiruvananthapuram/towards-total-organic-farming/article6734928.ece

- As part of an initiative to promote total organic farming among 1,000 families living in six wards in Venganoorpanchayat, more than 800 families who have switched over to zero-poison farming met at Muttakkad near here on Sunday.
- This was the eighth such farmers' meet, a press note issued here said.

North-East News

1. **North East leads in organic farming**

http://www.telegraphindia.com/1141218/jsp/frontpage/story_4036.jsp#.VKzQkiuUf5I

- Meghalaya progresses towards chemical-free crops
- Sikkim and Mizoram are leading the country in organic farming while Meghalaya is weaning out chemical fertilisers and pesticides and providing free bio-pesticides and bio-agents to farmers.

2. **Maneka bats for organic farming**

http://www.thehindubusinessline.com/industry-and-economy/agri-biz/maneka-bats-for-organic-farming/article6711342.ece

- Emphasising the need for encouraging organic farming, Union Minister Maneka Gandhi today said there was no need to use chemicals or pesticides for crop protection.

3. **Centre to accord priority for promotion of organic farming in North East**

http://www.theshillongtimes.com/2014/12/20/centre-to-accord-priority-for-promotion-of-organic-farming-in-n-e/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+TheShillongTimes+(The+Shillong+Times)

- With shrinking land for day-to-day agriculture and optimum production within the reach, the Centre is now looking for organic farming and the best place seems to be the virgin North East Region.

Make 2015 an Organic Year

2014 was the year of science supporting the benefits of organic food and farming: for human health, pollinator health, and the health of the environment.

To help you ring in the new year and truly turn over a new healthy leaf, The Organic Center has transformed the top ten studies of 2014 into New Year's resolutions that show how to improve the state of your diet and the state of our planet by choosing organic.

1 Be health-minded. Eat **organic**.

A review of the latest research on the effects of organic agriculture and crops on public health found a clear health advantage in consuming organically produced food instead of conventionally produced. Published in the International Journal of Environmental Research and Public Health, the findings concluded the lower pesticide residue levels in organic produce were a significant factor in helping account for these benefits.

2 Get **pesticides** out of your life.

Pesticides, linked to numerous health problems, are still found on conventional produce in the grocery store. A study showed that eating an organic diet for just seven days can significantly reduce your exposure to pesticides. The research found pesticide metabolite levels in a group of individuals who ate a diet of at least 80 percent organic for a week were cut by up to 96 percent.

3 Load up on **antioxidant**-rich foods.

A key study of 2014 showed organic fruits and vegetables have higher levels of antioxidants. Researchers found that if you choose organic rather than conventional fruits and vegetables, you can get an average of 20-40 percent increase in antioxidants! Antioxidants protect our cells against the effects of free radicals, which can damage cells in the body and trigger disease.

4 **Bee** concerned.

Commercial beekeepers are losing an average of 30 percent of their colonies each winter. This is a problem for bee-pollinated crops such as almonds, apples, cucumbers, avocados, oranges, and berries. One of the major contributors to bee deaths is exposure to pesticides, particularly neonicotinoids. In 2014, a study published by Harvard researchers supported and strengthened research in 2012 that found a link between neonicotinoid use and colony collapse disorder.

5 Save organic **citrus**.

A disease called citrus greening has devastated thousands of acres of citrus trees in the United States, and may even cause domestic citrus to disappear altogether. Research on controlling this disease focuses on toxic pesticide sprays and the development of GMO citrus varieties. The Organic Center has teamed up with professors at universities, industry members, and organic growers to launch a large-scale study looking at organic solutions to citrus greening. Visit the Organic Center Citrus Greening page.

6 Do your part. Help slow down **climate change**.

Research shows good news for climate change mitigation: organically managed soils could reverse the trend of increasing CO2 in the atmosphere! Conducted by the Rodale Institute, the research looks in-depth at how farming systems affect greenhouse gas emission, and illustrates the ability of soil to mitigate climate change when managed organically.

7 The more the merrier! Support **biodiversity**.

A study in the Journal of Applied Ecology found that organic farms support more species than conventional farms. On average, organic farms support 34 percent more plant, insect, and animal species than conventional farms. When the researchers looked at pollinators such as bees individually, they found that organic farms had 50 percent higher species diversity.

Spread the word

Help make 2015 an organic year for your friends, family, neighbors, and colleagues. Stay informed…and pass your knowledge on!

8 Focus on **soil health**.

A study on healthy soil biodiversity published in Agronomy for Sustainable Development found that conservation and organic farming techniques boost the number of soil organisms when compared to conventional farming. The researchers measured soil life over a period of 14 years and found that versus conventional systems, organic and conservation agriculture systems had more earthworms in the soil, 30 -70% more microorganisms, and improved bacterial pathways.

9 Listen to the **birds**.

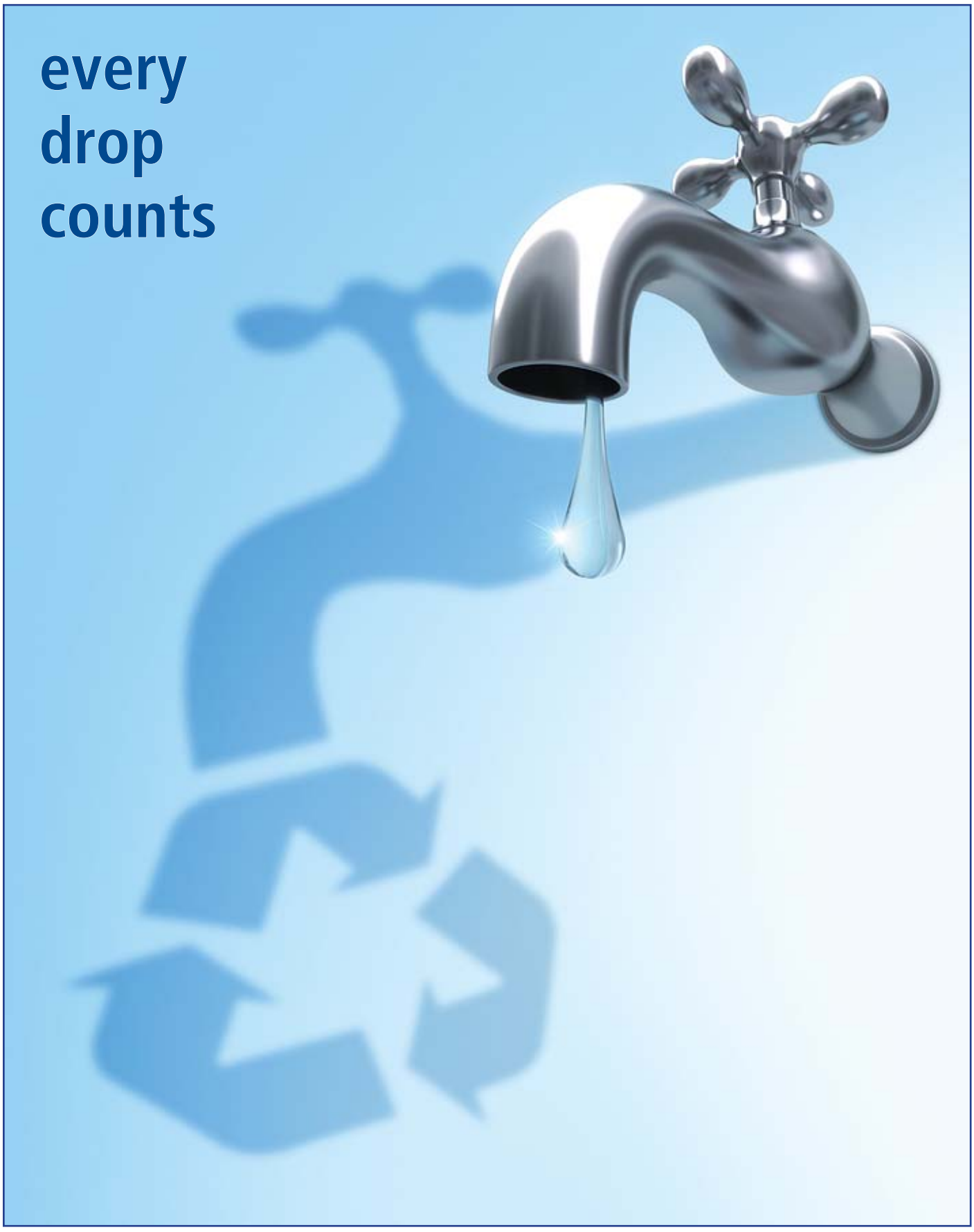
Research shows that organic farming is healthier for birds. Songbirds are especially sensitive, because conventional farms can reduce food supplies for young songbirds unable to leave their nests. An article in the journal Agriculture, Ecosystems & Environment compared availability of "nestling" food on organic and conventional farms. Because organic farming does not use synthetic pesticides and has longer, more diverse crop rotations, organic farms were found to provide more available nestling food than conventional farms.

10 Keep away from **toxins**.

Ten: Keep away from toxins.

Avoiding pesticides is even more important than previously thought. A study led by Organic Center Science Advisory Board member Professor Gilles-Eric Séralini showed that major pesticides are more toxic to humans than suggested by their active ingredients. Pesticides contain a mix of "inert" ingredients. These "inerts" are not taken into account in safety test trials, and the active ingredients are tested in isolation. This research looked at the toxicity of herbicides, fungicides, and insecticides when all ingredients were included, and found that eight out of nine pesticide formulations were up to one thousand times more toxic than their active ingredients.

every drop counts



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