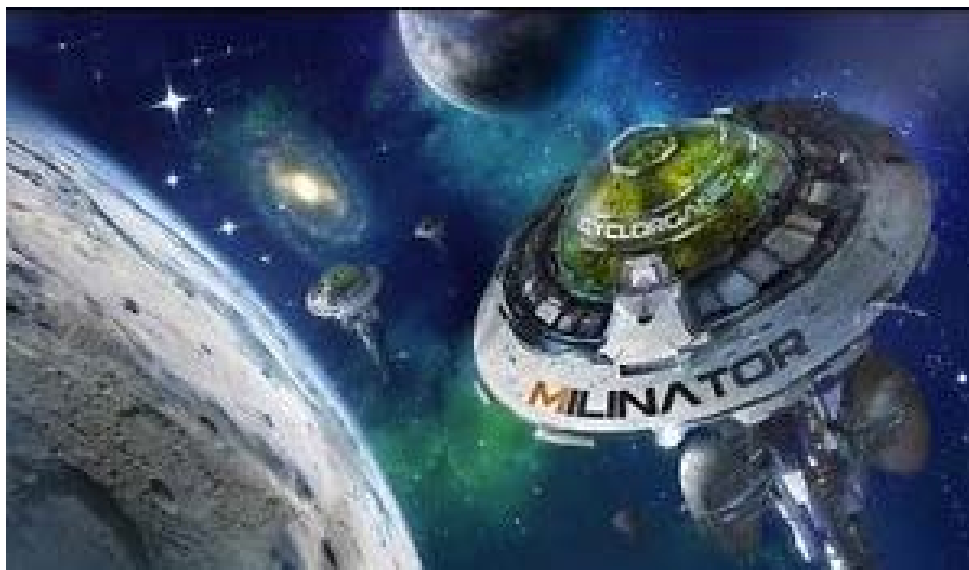


# CANADIAN EXPORT TO NEPAL: CYCLOORGANIC FERTILIZER

KELTIE MORRIS  
UNIVERSITY OF GUELPH

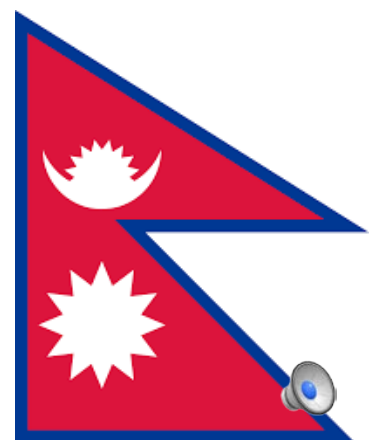


<http://www.ecospace-eng.com/history.html>



**IDRC | CRDI**

International Development Research Centre  
Centre de recherches pour le développement international



# NEPAL

28.3949 ° N, 84.1240 ° E

- \* POPULATION: **28** MILLION
- \* LAND AREA: **147,181 KM<sup>2</sup>**
- \* **70%** INVOLVED IN AGRICULTURE
- \* CONTRIBUTING **~40%** OF GDP

## CANADA

- \* POPULATION: **34** MILLION
- \* LAND AREA: **9.98 MIL KM<sup>2</sup>**



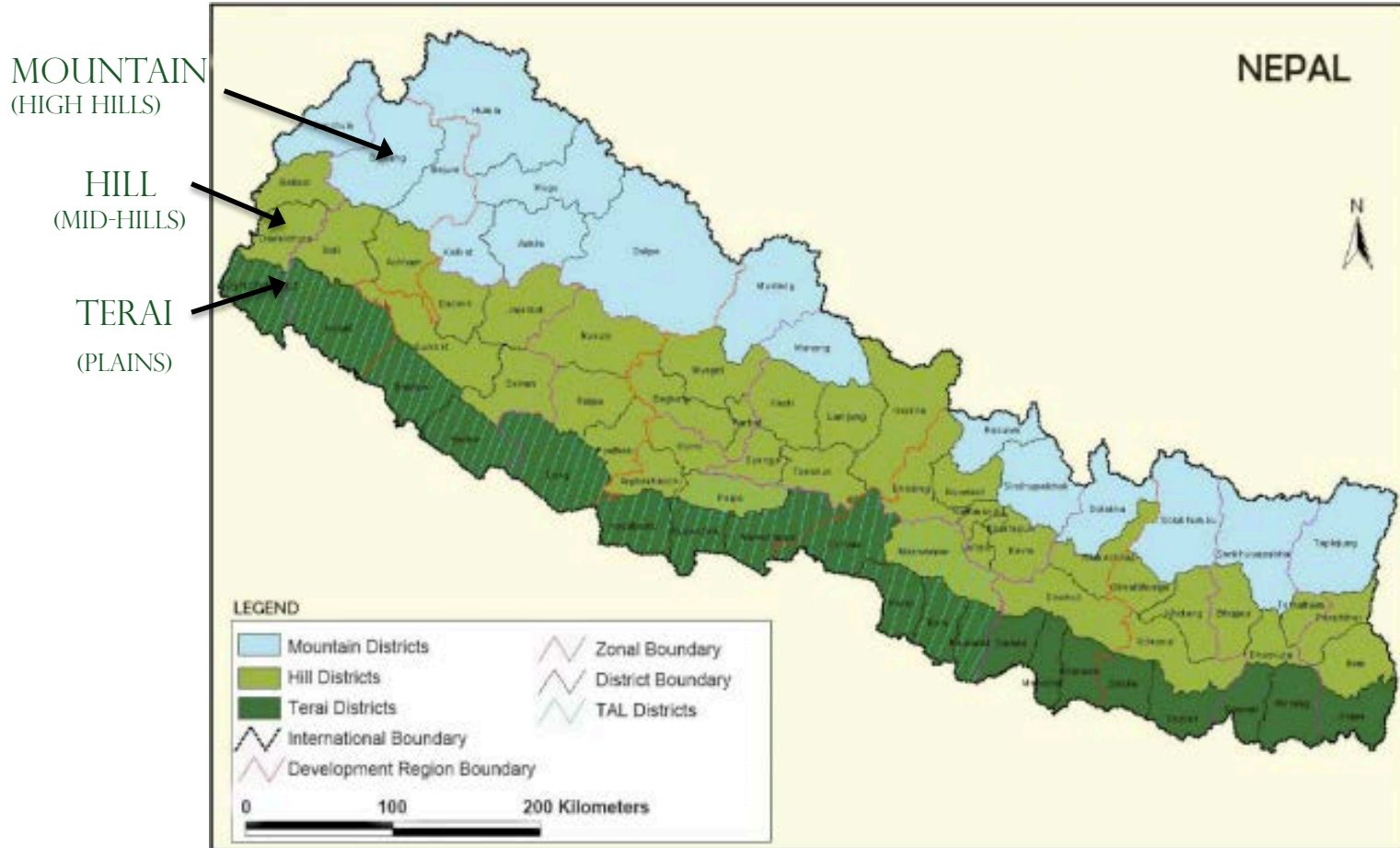
<http://geology.com/world/world-map.shtml>



<http://www.hitherandyononline.com/Prayerflags/prayerflags.htm>

# NEPAL

## GEOGRAPHICAL AREAS



National Sample Census of Agriculture. 2013 from: [http://cbs.gov.np/image/data/Agriculture/National%20Level/NATIONAL%20REPORT%202011\\_12.pdf](http://cbs.gov.np/image/data/Agriculture/National%20Level/NATIONAL%20REPORT%202011_12.pdf)



# AGRICULTURE IN NEPAL

## HIGH FOOD INSECURITY DUE TO:

- \* **LIMITED AREA** OF PRODUCTIVE LAND
- \* **DECLINING SOIL FERTILITY**

## MINIMAL FERTILIZER USED IN NEPAL:

- \* **COSTLY**
- \* **UNREGULATED QUALITY**
- \* **UNSUSTAINABLE**
- \* **SYNTHETIC**







# CYCLORGANIC FERTILIZER

**Natural CYCLORGANIC Fertilizer**  
The Most Complete Fertilizer That Perfectly Fits Plant's Metabolism  
**SPACE TRAVEL TECHNOLOGY ADAPTED FOR EARTH**

**CYCLORGANIC**  
Produced by the MILINATOR process, originally developed to naturally recycle organic waste on spaceships for their future interplanetary voyages.  
MILINATOR utilizes fly larvae for organic waste processing. Fly larvae, the prime organic recyclers, influenced plant's development for over 500,000,000 years.  
Larvae add bioactive catalysts, enzymes, and vitamins to the CYCLORGANIC fertilizer. A plant's metabolism reacts favorably to these ancient bioactive substances, by unlocking the maximum potential for growth, flavor and resilience, on a plant's cellular level.  
Learn more about MILINATOR process and CYCLORGANIC fertilizer on our website and please check our references: [www.cyclorganic.com](http://www.cyclorganic.com)

**5 - 3 - 2**  
**CYCLORGANIC**  
**100% NATURAL**  
**400 g.**  
**PRODUCT OF CANADA**

**WHAT TO EXPECT**  
LARGER, HEALTHIER PLANTS  
VERY LARGE ROOT MASS  
DARKER GREEN FOLIAGE  
INCREASED FLOWERING  
LARGE YIELD INCREASE  
MUCH TASTIER EDIBLE PLANTS  
ENHANCED FLAVOR IN HERBS  
FULL MEDICINAL POWER  
INCREASED MICROBIAL ACTIVITY  
INCREASED PLANT RESILIENCE  
EASIER GARDENING  
NON-TOXIC & PET-SAFE  
NO SYNTHETIC CHEMICALS  
NO MINED MINERALS  
**THE BEST OF ALL IS:**  
ONE APPLICATION PER SEASON  
IS USUALLY SUFFICIENT

**BUY LOCAL! CYCLORGANIC WAS MADE ON YOUR PLANET**

**HOUSTON, WE HAVE A SOLUTION**  
IT IS NOT BY ACCIDENT THAT MILINATOR TECHNOLOGY WOULD FOLLOW HUMANS IN SPACE



<http://www.ecospace-eng.com/news.html>



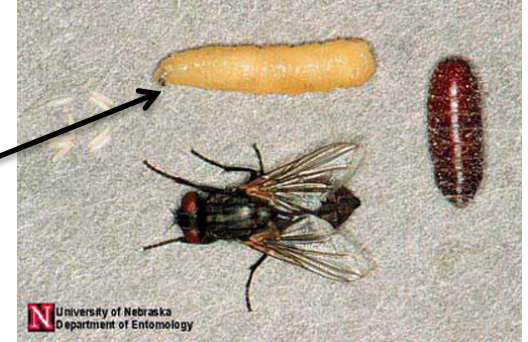
[ecospace-eng.com](http://ecospace-eng.com)



# CYCLORGANIC

*Musca domestica*  
(House Fly)

MANURE  
PROCESSED BY  
LARVAL STAGE



[http://entnemdept.ufl.edu/creatures/urban/flies/house\\_fly.HTM](http://entnemdept.ufl.edu/creatures/urban/flies/house_fly.HTM)

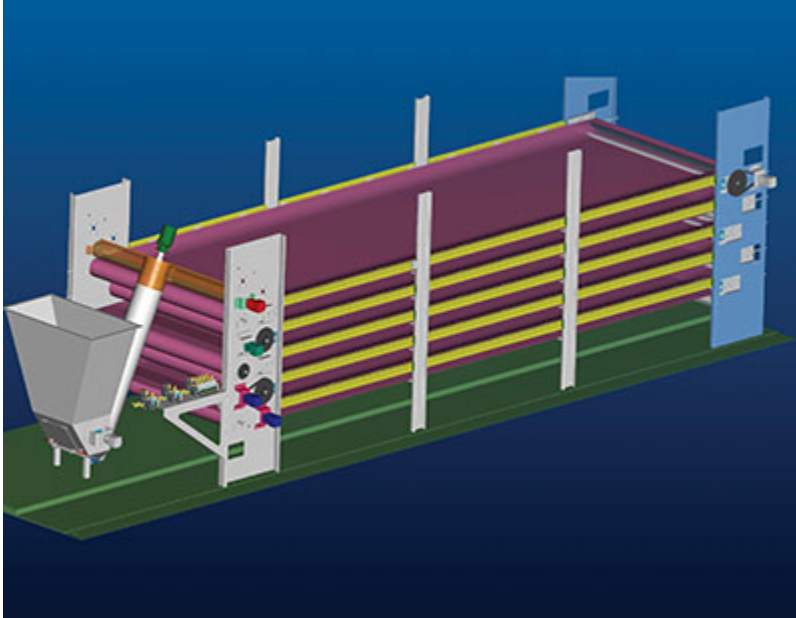


Figure 1: Schematic drawing of Milinator prototype equipment engineered by Walinga Inc. in Guelph, ON (Source: Walinga Inc. 2006).

**PROCESSING 1 KG CYCLORGANIC REMOVES 60L  
CARBON DIOXIDE & 12L AMMONIA**



<http://www.ecospace-eng.com/video.html>

# BENEFIT TO NEPAL

FERTILIZER CRITICAL INPUT FOR DEVELOPING AGRICULTURE PRODUCTION

HELP **SUSTAIN LAND FOR CONTINUAL GROWTH**

**REPLENISH SOIL NUTRIENTS**

**INCREASE SOIL PRODUCTION**



<http://rismfp.gov.np/gallerydetails.php?id=43>



<http://www.environmentalhealthnews.org/ehs/news/2012/urine-as-fertilizer>

LEAD TO **LARGER, HEALTHIER CROPS**

**GREATER YIELDS**

ADDRESS PREVALENCE OF **FOOD INSECURITY**





# BENEFIT TO CANADA

CONTINUE TO INVOLVE CANADIAN COMPANIES THROUGH RESEARCH  
AND PRODUCTION

PROCESSING PLANTS CREATE EMPLOYMENT IN RURAL PARTS OF  
CANADA

NEPAL MARKET WILL INCREASE PRODUCTION DEMAND IN ONTARIO

ADDRESS ENVIRONMENTAL ISSUES OF EXCESS MANURE



**WALINGA®**





# FURTHER POTENTIAL: CYCLOORGANIC PRODUCTION IN NEPAL

\* **MILINATOR** PROCESSING  
UNITS IN NEPAL

\* **ON-SITE** PRODUCTION OF  
**ORGANIC FERTILIZER**



<https://www.flickr.com/photos/undpnepal/6966402703/in/photostream/>



\* **ELIMINATE COST OF TRANSPORTATION**

\* **DRIED LARVAE USED A PROTEIN SUPPLEMENT  
FOR POULTRY FEED**



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THANK YOU FOR LISTENING!

