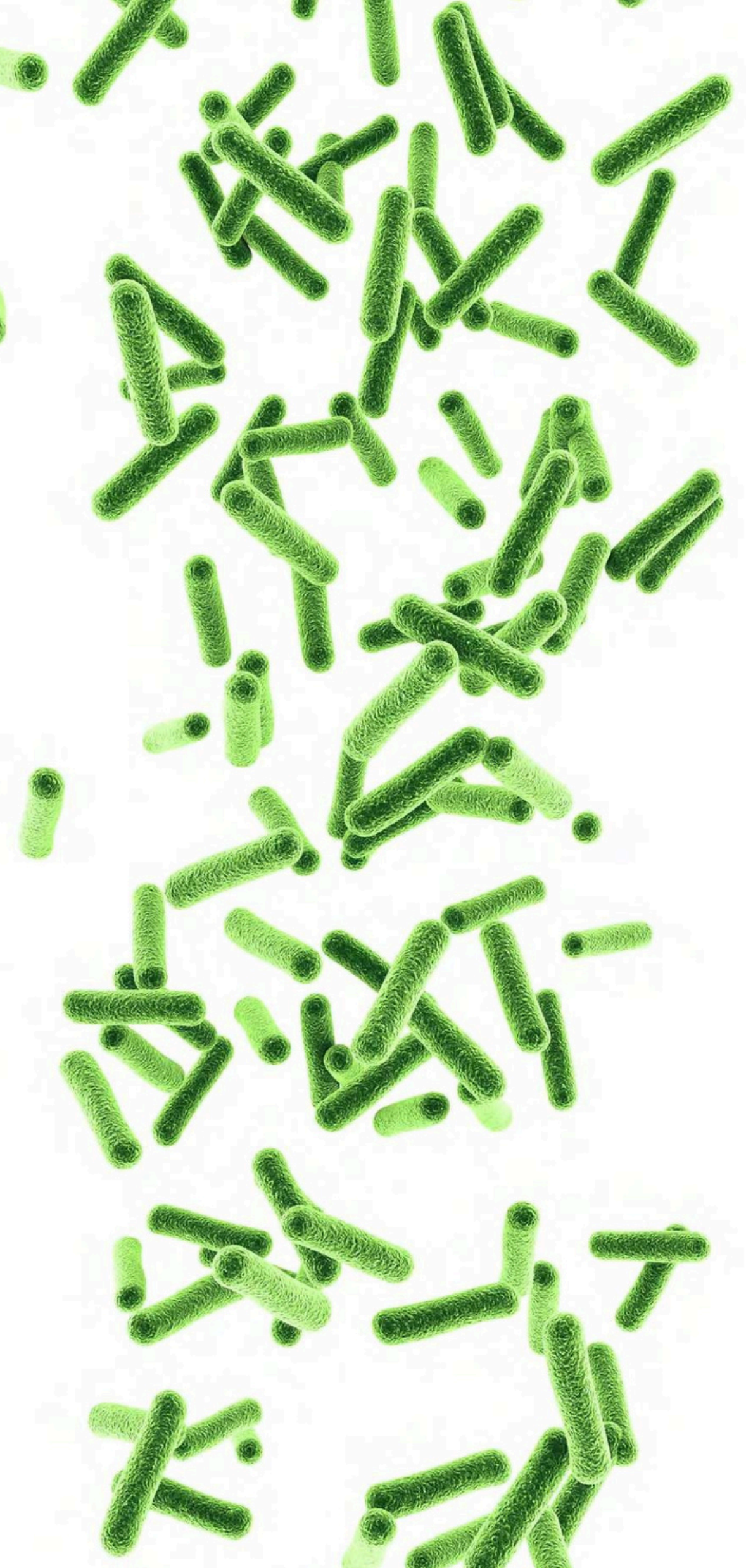




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Microbiate SG™ Product Overview - 2024



BioNorth Solutions Overview

Founded in 2014 by Canadian microbiologists Amber Kivisto, MSc and Dr. Miranda Lock, PhD, BioNorth Solutions is an award winning Canadian environmental biotech corporation, specializing in the development and commercial retail of both hydrocarbon remediation and plant growth promoting bacteria.

Through 6 years of focused R&D, and backed by significant provincial and federal research grants, BioNorth Solutions Inc. has developed and now produces some of the world's most consistent & voracious strains of bacteria available for commercial hydrocarbon remediation and agricultural growth applications.

BioNorth Solutions' technologies are green, cost-effective, and can be tailored specifically to a client's needs and applications.

Microbiate SG™ - Hydrocarbon Remediation

Microbiate SG™ includes 6 strains of bacteria which each degrade hydrocarbons, working synergistically to accelerate the process of bioremediation. Hydrocarbon chains are broken down to form trace amounts of carbon dioxide and water. An activator (nutrient pack) is included, adding nutrients at key times accelerates the bioremediation process.

Microbiate SG™ remediates spills, cleaning the ground or water and restoring it to its natural state.

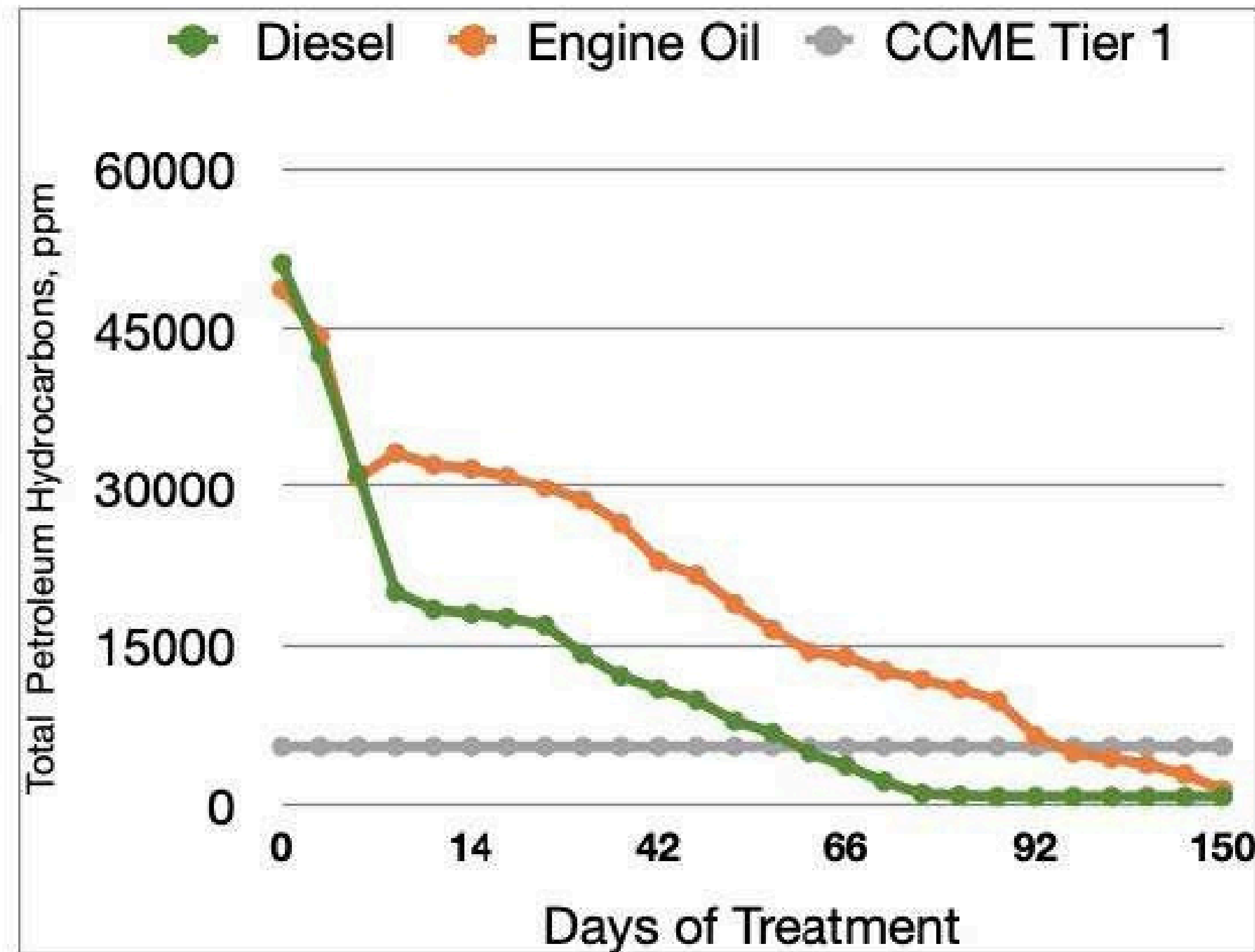
Benefits of bioremediation using Microbiate SG™ include:

- All-natural microbes selected for their efficacy.
- Microbes are grown using proprietary methods that eliminate impurities and ensure the microbes are highly effective and propagate rapidly.
- Products contain multiple & complimentary strains of bacteria designed to increase efficacy.
- Microbiate SG™ has the lowest operating temperature rating on the market and is effective at lower temperatures than the competition (0.01-49°C).
- Microbiate SG™ continues to remediate over the course of seasonal ambient temperatures.
- At temperatures below freezing, the microbes become dormant but will reactivate as temperatures exceed 0°C (32°F).
- Microbiate SG™ requires 30% less moisture to activate and operate than all other products on the market.
- BioNorth Solutions in situ Microbiate SG™ has been developed to provide end users significant savings over traditional and costly “Dig & Dump” remediation methodology while providing a much more aggressive and environmentally friendly hydrocarbon remediation solution.



Microbiate SG™ Studies

Degradation of Hydrocarbons



Microbiate SG™ is an environmentally friendly, natural product that returns land to its natural state without the high costs associated with other remediation methods. Microbiate SG™ cleans spills, rather than simply relocating them.

Typical remediation rates using Microbiate SG™ are displayed above. Heavy oils (engine, hydraulic and crude oil, etc.) require a longer period of time to remediate as opposed to lighter hydrocarbons such as diesel or gasoline. Temperature, moisture, soil type, and aeration influence remediation rates; please refer to technical data sheets to enhance the remediation process.

Microbiate SG™ Differentiator

Product	Oil Buster PRP	Oil Gator	Liquid Remediact	Remediact Dry	Zymobac VICRO	Micro-Blaze	Microbiate
Product Form	Dry	Dry Fibres	Liquid	Dry	Dry	Liquid	Dry
Working Temps.	5 - 35° C	5 - 49° C	5 - 49° C	10 - 32° C	Not Available	Not Available	0.1 - 49° C
Optimum Temps.	Not Available	Not Available	Warmer = Faster	Warmer = Faster	Not Available	Not Available	15 - 35° C
Moisture Level	20%	30%	30%	30%	30-40%	30-40%	12-15%
Treatment Area	1:2 by weight	50 lbs/cubic yard	1 gallon/cubic yard	2 lbs/cubic yard	0.11 lbs/cubic yard	0.1 gallon/cubic yard	0.2 lbs/cubic yard

Microbiate SG™ Packaging

Product Size	272 g	1.36 kg	20.4 kg	20.4 kg (1.36 kg x 15 refills)
Product No.	MB-100	MB-101	B-103	MB-104
Product Coverage	0.42 m ³ - 15 ft ³	2.1 m ³ - 75 ft ³	31.75 m ³ - 1121 ft ³	31.75 m ³ - 1121 ft ³



An aerial photograph of a lush, green landscape. The foreground is dominated by a vibrant green field, possibly a crop field, with visible furrows. The middle ground shows rolling hills covered in dense green vegetation, with some scattered trees and a small cluster of buildings. The background features a range of low mountains or hills under a clear, bright blue sky. The overall scene is peaceful and scenic, representing a rural or agricultural setting.

For more information, visit:

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