

BIO-ALGAE CONCENTRATES AWAKENS THE GENIUS WITHIN

By Roland Thomas, B.Sc., N.D.

Bio-Algae Concentrates - 20,000 person years of Russian research

Starting in the early 70s, the Academy of Science and later the Ministry of Nutrition agencies of the former Soviet Union invested more than 20,000 person-years of research and development to produce nutrient rich blends of algae coined Bio-Algae Concentrates (BAC). Under the leadership of a pioneer in biotechnology, award-winning Moldavian scientist Michael Kiriak, PhD, now living in Canada, patient and innovative research delivered blends of algae that hold extraordinary nutritional properties. In his early years, Doctor Kiriak was tasked by the demanding Soviet Union to discover nutritional ways to reduce cancers and improve productivity in livestock. Instead of relying on supplementation with dangerous hormones, chemicals, and antibiotics, he turned to nature's wealth and researched the embryonic field of microalgae for answers. Soon the cancers were prevented, the animals growing larger, living longer, in better health, with lean muscle and less fat, all from carefully composed blends of algae added to their diet.

Consisting of complementary and synergistic mixes of best algae selected among thousands investigated, BAC far exceeds the benefits of any single alga, algae blend, green food or superfood known today. These blends were studied and proven with large animal populations, and used in real life production with millions of chickens, thousands of pigs, minks and dairy cows, for a decade prior to the 1990 breakdown of the former Republic.

In 2001, I wrote a book detailing 18 years of intensive Soviet research. The book titled "The Magic of Bio-Algae Concentrates: The Michael Kiriak Story" also tells the dramatic story of Michael Kiriak who pioneered algae research all those years as principal scientist for the Academy of Science; research that led to the extraordinary algae blends that are available today. It is an unlikely event that a country's power will fuel such intensive endeavor in medicine or health. We saw what Superpowers' coordinated effort can do when a race to reach the moon was on. I invite you to read about these extraordinary circumstances that allowed such advancement in natural sciences, and to have an inside look at the politics of research within the former Soviet Union.

Animal Research

More than 20 animal species were tested in the making of BAC; from laboratory rats, rabbits, birds, fishes, cats and dogs, to farms of sheep's, goats, horses, culminating with production livestock farms and millions of animals.

Generally, in livestock animal feeds, the protein base comes from cereals, sunflowers and oleaginous seeds residuals. These sources rarely provide a complete solution for nutritional proteins. It is known that the cereal content of amino acids like lysine, methionine, tryptophan and others is below minimum metabolic requirements for agricultural animals. This problem constitutes the principal cause of protein and metabolic energy deficiencies. Additionally, this low count of existing proteins is not fully utilized. For example: from 10% albumin in barley, only 5.5% is available; of 23% albumin in peas, only 10% are utilized. More than 50% of the albumins contained in grains are eliminated with the stools. This represents large economic losses.

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Alongside this, because of heavy usage of growth hormones and antibiotics, the natural good taste in diverse meats, eggs and dairy products does not meet consumer's satisfaction.

These problems can be resolved when adding BAC to the animal feed, a concept that has now been demonstrated in many countries. BAC formulas are blends of microalgae concentrates rich in nutrients that are highly bioavailable. The biotechnologies of these preparations delivers a content rich in beta-carotene, alpha-carotene, vitamin B complex (including B12), vitamins E, C, amino acids, trace elements, and many more nutrients which provide significant benefits when added to animal feed. Additionally, biotechnological processes applied to the organic raw materials during hydroponic growth and harvest of the preparations result in value added and increased synthesis of the nutrients (proteins, antioxidants, vitamins, minerals, pigments and catalysts).

The validity of this discovery was confirmed when feeding pigs, cows, poultry, and fur animals in Moldova, Ukraine and Russia. This innovative concept delivers an end product with nutrients in the feed that can be adjusted for the specific needs of many animal species.

With BAC, the action of the controlled levels for phycobiliprotein, iodine, selenium and other nutrients when used in animal feeds supports optimal metabolic cycles. The appropriate dosage stimulates protein metabolism and favors maximum utilization of albumins derived from vegetable proteins. The resulting increase in energy is fully directed towards metabolic maintenance and productivity.

In considerable ways, the utilization of BAC in the animal industry can prevent pesticide induced intoxications and resulting dysfunctional liver metabolisms. With current trends in intensified use of proteins, vitamins and other supplements within the animal industry, the microbiologic synthesis obtained with BAC becomes a crucial ally.

In production farming of poultry for meat and eggs in Moldova, Ukraine and Russia, the use of BAC in the feeds increased the viability of the chickens by 4.45%, increased their weight by 21.26%, diminished the feed cost by 14%, and showed an increased strength of the eggshell, a rise of 5.8% in egg fertilization and 3.8% in successful egg laying. The mortality rate of chicks born of parents using BAC decreased to 1.35% from averages of 10% in the witness population. Alongside this, the natural good taste of the meat and eggs is significantly enhanced.

Remarkable results were obtained with pigs starting with the second generation when applying the hybridizing (cross breeding) of species. There was general productivity increases with augmentation in the number of newborn per litter, an increase in survival rate from 98% to 99%, genetic health increases transmitted to next generations, and significantly better tasting meats.

Similar positive results were obtained with cows, minks and rabbits. Noticeably, the best results were obtained when working with animals born of parents fed BAC in their feed starting at least 10 to 12 days before conception. I summarize next several benefits obtained or observed with most species tested:

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In General with All Species

- Reduces the quantity of feed required per pound of meat, milk and eggs
- Increase calcium absorption and retention
- Prevents, reduces or eliminates osteoporosis
- Relieve arthritis, gain flexibility
- Balance hormonal disorders
- Prevent tumors and cancer
- Stimulates and strengthens the immune system
- Enhance growth and tissue repair
- Prevent and reduce degenerative diseases and associated cost
- Balanced mood and calmer emotions
- Achieve optimum health and longer life
- Accelerate healing
- Improve digestion
- Detoxify their body
- Increase vitality in newborn
- Decrease in birth mortality rates
- Increases spermatozoid activity by 3 to 4 times
- Increases the numbers of fetus in the litter
- Increases the technical efficiency when transplanting embryos
- Increases in the number of embryos results in higher fertility
- Augments the reproductive quality in mammals and poultry
- Provides superior natural good taste in meats, eggs and dairy products
- Reduce and/or eliminate use of antibiotics and growth hormones
- Reduces production costs and increases productivity and profits

I present next selected research projects that when put together make up undeniable proofs of concept due to the sheer number of animals involved. These 100% blind study cases are compelling evidence of the benefits in using BAC.

Poultry Research

The most compelling evidences of the benefits of BAC were collected at a large poultry facility in Moldova from 1985 to 1995. This meat and eggs facility with a population of one million chickens at start of research was selected as a principal research center to demonstrate the prevention of cancers. The population grew to 1.5 million animals and an increase of 20% in overall productivity was verified. The productivity measure criteria and results were:

- Eradication of the Marek disease
- Higher vitality and reduction of disease
- Larger eggs with stronger shells (higher calcium content)
- Viability increased from 90% to 98% (birth mortality dropped 8% to less than 2%)
- Increased egg laying period from 17 to 24 months (reduction in bone loss)

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- 50 additional eggs per year per chicken
- Higher nutritive value of the eggs
- Better tasting meat and eggs

Dairy Cow Research

In Russia many trials showed significant results with beef and cows when using BAC in the animal feeds. A large trial involving a farm of 15,000 dairy cows affected by various cancers and low productivity lead to astonishing tangible results. Here is a partial list of benefits and observations from this trial:

- Increased viability of donor's embryos and resulting fecundity
- Increased spermatozoid count and motility (4-5 times)
- Increased instances of multiple birth (twin)
- Increased viability (survival) of new born
- Increased milk butterfat and protein percentage
- Increased milk production nearing 4%
- Extension of lactation period decreasing turnaround for new cows
- Reduction of daily protein/feed by 12.5% with no decrease in milk
- Increased calcium absorption and retention, reduction of bone loss
- Reduction and prevention of metabolic mastitis by over 90%
- Faster healing of mastitis with shorter loss in lactation
- Prevention and relief from arthritis
- Reduction in hormonal disorders
- Reduction of thyroid problems in calves and rapid healing from the condition
- Increased fertility and resulting population growth
- Increased immunity and prevention of tumors and cancer
- Accelerated healing and tissue repair, strength and flexibility
- Prevention of encephalopathy through increased immunity
- Balanced mood and less excitability
- Improved digestion and detoxification
- Elimination in use of antibiotics and growth hormones
- Prevention of degenerative diseases and associated cost
- Healthier and better tasting milk and meat

Pig Research

A 54,000 pigs farm near Voronege, was plagued with some cancers and low productivity. One year after BAC was introduced on this farm, the following results were observed:

- Increased spermatozoid count and motility (4 times)
- Reduction of cardiovascular problems
- Increased size of pig litter
- Increased viability of piglets
- Increased fertility resulting
- Healthier and better tasting meat

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Mink Research

Generally, with fur animals like minks and rabbits, noticeable increases in luster and shine of the fur were obtained. In Siberia, hundreds of mink farms totaling more than 10,000 animals were affected by various cancers and low productivity affecting this important soviet industry. The following results were observed:

- Increased fecundity
- Increased spermatozoid count and motility (4 times)
- Significant increases in size of litter
- Increased viability of new born
- Shinier and healthier coat
- Increased fertility and resulting population growth

Dog Research

In this informal study, hundreds of dogs, the majority German Shepherds were observed during several years. These dogs were used to guard the poultry from foxes and other predators on the research farm in Moldova.

- Increased dog litter size
- Increased viability of puppies
- Minimal health problems as compared with neighboring farm's dog population
- Increased fertility resulting

Ongoing Research in North America

Since 1990 BAC has been used extensively in Moldova, Europe and North America by thousands of people and with thousands of animals, and several farms. Its proven benefits with livestock's are being reproduced in North America.

Poultry Research

During 1999 to 2000, the research department of the Montreal McGill University was able to reproduce some of the poultry productivity results achieved in Moldova. Working with tests groups of up to 33,000 chickens, the groups with BAC added to their grain demonstrated expected results over the control groups not fed BAC, namely the mortality rate dropped from a normal average of 10% to below 2% within the first generation. This test was performed twice for accuracy, and the same positive results were realized. See the diagram of results in Annex A.

Dairy Cow Research

Alain Forget has a large cow dairy farm in Laval, Quebec. His farm is one with the highest milk qualities in Canada. Alain accepted to trial BAC on his farm in January of 2006. This trial is an ongoing preliminary step towards a formal presentation of the results to the Canadian Agricultural agency. All statistics collected at the farm and

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presented in this report are regulated by the Canadian agency.

Find next in Alain Forget's own words the summary of results after the first six months. Updates will be presented as they become available.

“For six months now, The Alain Forget Dairy Farm of Laval is participating in a research project consisting of administering a special blend of algae to the dairy cows. Find here a synopsis of the farm's results after 6 months trial.

We have a farm averaging 40kg of Butter Fat per day. We keep our cows free range and feed them the Total Mix Ration (TMR). The 20 cows involved in the trials are pure breed Holstein. Their average production before the start of the trial was 10,039kg of milk per cow with a MCR of 226 M, 219 Fat, 223 Proteins and a somatic cells count (SCC) averaging 84,000 for the previous 12 months.

After six months of trial with BAC their productivity averages has shifted to 10,565kg of milk per cow with a MCR of 248 M, 242 Fat, 236 Proteins and a somatic cells count averaging 70,000 for the six months period”

In summary the milk quality and improvement numbers are :

	<u>Production</u>	<u>Milk</u>	<u>Fat</u>	<u>Protein</u>	<u>SCC</u>
<i>Pre-trial</i>	10,039kg	226	219	223	84,000
<i>Post Trial</i>	10,565kg	248	242	236	70,000
<i>Differences</i>	+526kg	+22	+23	+13	-14,000
<i>Improvement</i>	10.5%	10.8%	11.5%	10.6%	8.33%

BAC with People

BAC had been used by the researchers, their family and pets since the beginning of the research in 1975, and thus informally researched. It stands to reason that if all these animal species benefited from BAC in so many ways that human would also benefit from BAC.

During the research years, small clinical projects and individual case studies involving human were frequently initiated by Michael Kiriatic. These studies were motivated by Mr. Kiriatic's desire to find solutions to health problems with human starting with those of his immediate family. After losing five members of his immediate family to pancreatic cancer, due to family genetics, Doctor Kiriatic was hoping to orient his research to the application of BAC for humans.

Disaster brought the first real opportunity to test BAC with humans. In 1986 immediately following the terrible radiation disaster at the Chernobyl nuclear center, the research team having demonstrated cancer fighting success was tasked for the first time to use BAC on human. Hundreds of children and adults greatly affected with

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radiation illness and expected to die were transferred to the research center where BAC was administered. With several cases affected with leukemia, a serious degenerative condition resulting from radiation exposure, there was early normalization of cell count, and reduction of radio active materials when measured in the urines. Several of the victims treated survived and are alive today.

North American Study - Healthy Blood Count in People

Since 2001, additional research with BAC and leukemic blood have been conducted by independent researchers attached to a Quebec university. The preliminary clinical results of in vitro tests have consistently showed that BAC was normalizing leukemic blood. Interestingly these same tests have demonstrated that BAC was more efficient when administered in smaller doses frequently rather than in larger doses applied infrequently.

BAC's Typical Ingredient and List of Nutrients

BAC contains four (4) uniquely nurtured, proportioned and preserved algae: Spirulina Pacifica, Spirulina Plantentis, Dunaliella, and Astaxanthin. The blends contain more than 5,000 known nutrients. A partial list follows:

- Complete Protein makeup: averages 50% vegetable proteins with net utilization rated over 90%
- More than 20 amino acids - All ten essential amino acids plus 10 additional
- Vitamins: A, C, E, K, B's and B complex (including human-active B12)
- All known minerals and trace elements; calcium, phosphorous, magnesium, sodium, chloride, potassium, sulfur, etc, and natural trace elements like iron, iodine, copper, manganese, zinc, cobalt, molybdenum, selenium, chromium, tin, vanadium, fluorine, silicon and nickel, etc.
- Phytonutrients - Highly evolved nature's special forces like phycocyanin, quercetin, lycopene and others which enhance a multitude of unique health agents like calcium spirulan which inhibits virus and cancerous cells
- Rich in essential and non essential fatty acids: Omega 3, 6, and 9, rare Gamma Linoic Acid (GLA) and other fatty acids
- More than 4,000 natural active enzymes that contribute to the efficient digestion of fats, carbohydrates and proteins, permitting greater assimilation of nutrients and total elimination of toxins
- A rich source of chlorophyll, with high levels of magnesium and calcium spirulan well-known agents for its antibacterial, anti-fungal and anti-inflammatory benefits
- Its Astaxanthin and Dunaliella contain high levels of alpha-carotene, including b-cryptoxanthin and beta-carotene that offers powerful immunity and toxin shield against continuous pollution, toxins and stress with hundreds of times the antioxidant power of vitamin E and C, and up to 40 times that of beta-carotene as found in carrots

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BAC awakens the Genius within

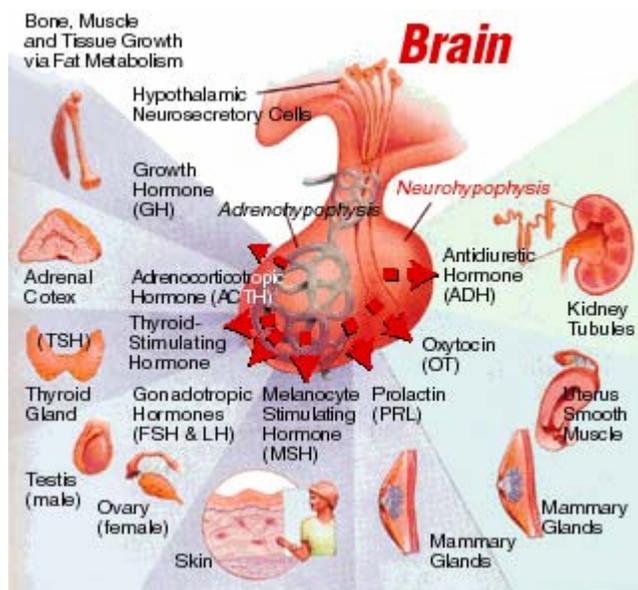
In 1999 when I met Michael Kiriak, he told me that consuming BAC was a different concept than that of supplementation. He said that BAC was a “Complement” rather than a “Supplement”. He explained that BAC complements the whole rather than supplements a symptom. That got my attention as in those days, as part of my personal health regiment I was taking more than 20 different supplements.

He told me “BAC awakens the Genius within”. He explained that BAC because of its completeness, balance, synergies and bioavailability, is an “extremely” efficient food and that its thousands of nutrients easily reach and nourish the cells of certain areas of the brain that are more difficult to reach than others. By “Genius” he referred specifically to this region of the brain that houses the mission critical “governing” organs of our metabolic health; namely the thalamus, hypothalamus, pituitary and pineal glands, and somewhat the cerebellum.

Ultimately these organs and glands are responsible for regulation of all energetic and physiological metabolisms. These metabolisms include the endocrine system, the sympathetic and Para-sympathetic nervous system, the central nervous system, the lymphatic system, the cardiovascular system and the digestive system with its critical assimilation, absorption and elimination functions.

In this paper I do not intend to write “scientifically” with long winded descriptions of metabolisms or body parts, and hundreds of references intended to prove each mechanism of action. As far as I am concerned, the holistic concepts and views of health expressed in this paper are scientifically valid, and as is the case with BAC, are proven by the results described previously. In line with keeping this article readable, I will refer to this “governing” region of the brain as “Genius”.

The Genius is located generally in the middle and base of the brain. The main function of the Genius is homeostasis, endocrine and energetic coherence, and maintaining the body's status quo. Factors such as energy, blood pressure, body temperature, fluid and electrolyte balance, fat metabolism and body weight are held to a precise value called the set-points. The Genius and its allies “the endocrine glands” are so important that they are called “the guardian of health”. In essence, all metabolic functions report back to and are governed by the “genius within”.



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Problems with the Genius

The Genius, like any other part of the body, is comprised of billions of cells; each with its share of cellular functions and specific responsibilities. Logically, when the cells that make up the Genius are healthy and doing their work, then the Genius will perform its metabolic overseer role adequately. By deduction, it stands that when the cells that make up the Genius are not healthy and not doing their work, then the Genius will not perform its metabolic overseer role adequately.

In order to be healthy and perform their work well, cells need hundreds of critical nutrients, many that are required daily. Only when these nutrients and their energy giving material are supplied will the cells grow, repair, defend from attacks and perform their specialized metabolic functions.

Due to its location within the head, and because of protective barriers to the brain, the Genius and its billions of cells are more difficult to reach and nourish adequately than cells of other parts of the body. With aging or disease, this task of nourishing those cells becomes even more difficult and we become less efficient at assimilating nutrients from our foods. This problem is initiated by poor choice of foods, by deficiencies in our diet, and by other intoxicating stressors. Often it is compounded because our foods are depleted of nutrients and/or inassimilable. These problems are sometime present at birth due to the mother's own genes, lifestyle and deficiencies, or will manifest early during infancy due to poor nutrition.

BAC – Optimum Cellular Food for Optimum Cellular Health

Michael Kiriak told me that BAC was extremely efficient cellular food that resulted in optimum cellular health. In our various talks, he always brought health to the cellular level. He suggests that there is only one disease, that is cellular disease and one health, which is cellular health.

In a "purist" wholistic health perspective, disease (non-health) can be demystified when you work with the cellular level. Let's be realistic; disease and their symptoms reside first at the cellular level. Let's even be scientific; after all, we are made up of hundreds of trillions of intelligent living cells which in turn make up our organs, bones, tissues, blood and brain. In this model, unhealthy cells lead to unhealthy organs, unhealthy organs lead to deficient metabolic activities, and this in turn leads to symptoms, which we name disease as in hypoglycemia. It is safe to say that once you are diagnosed with a disease, that the problem is systemic, and more than the showing symptoms. We don't catch diseases, we make them. The causes that lead to disease have been manifest in every cell of the body for some time. In the true scientific view, disease is at the cellular level.

Let me describe cellular disease in four (4) points:

1. Once symptoms of disease are manifesting (as in hypoglycemia or cholesterol, or high blood pressure), most cells of the body are likely toxic, deficient in nutrients and energy, and are likely less efficient in conducting their myriad of survival activities:

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repair, detoxification, growth and re-generation, and their specialized contribution as in “insulin” production by certain pancreatic cells.

2. At the next level, due to those cellular inefficiencies, the organs are now less efficient in conducting their own metabolic role(s). For example, with hypoglycemia, we say that the pancreas is sluggish in regulating the blood sugar with adequate insulin.
3. Realize now, that the important organ Genius which is also made of cells, is also affected by this cellular disease and rendered less efficient in controlling critically important metabolisms like that of blood sugar, pH (acidity/alkalinity), and even each beat of the heart. You’ve got a serious problem when the Genius itself is atrophied.
4. Aggravating the problem, after years and decades of metabolic inefficiencies (improper pH, blood sugar, temperature, fats, etc.), the Genius (and its endocrine glands) has become tolerant (miss-programmed) of these negative metabolic behaviors. The Genius now thinks it is in a “healthy” state of health and is uncomplaining. For example, when the Genius has become lazy in attempting to regulate those cells of the pancreas that responsible for insulin production, we have a chronic condition which we call diabetes.

At this stage rest assured that many other cellular metabolisms operate poorly and manifest as symptoms at the organ and metabolic level; you now have poor Krebs/ATP cycle and cellular exhaustion, mal-assimilation, mal-absorption and poor detoxification and elimination, deficient protein synthesis, sluggish osmosis of water (dehydration), deficient oxygenation (hypoxia). There is chronic acidity and resulting acidosis; not only do you have incorrect pH levels, but because of inefficient flushing of cellular debris, you have accumulated acid ashes inside and between the cells. These conditions have lead to infestations of bacteria and parasites (fungus, yeast and Candida), to “bad” fats (high cholesterol) and lack of viscosity. Frequently there is crystallization of fats and other unassimilated debris into plaque and arthritis. Your food / nutrients assimilation and elimination is deficient; you have loss your healing energy, your healing force, and it’s now a vicious cycle.

How BAC awakens the Genius within?

As per Hippocrates’s advice: “let thy food be thy medicine”, all good foods have the potential to nourish and heal. For this healing to be a reality, the nutrients in the food we eat must be assimilated and absorbed within the cell wall in sufficient and required quantity. Because of wrong food choice, aging and other metabolic deficiencies, this becomes quite difficult to achieve and cellular disease takes over.

Due to its extraordinary nutrients content and their bioavailability, BAC’s nourishment potential is hundreds of time more than ordinary foods and other source of nutrients. BAC’s combined nutritional values and high utilization properties deliver the promise of optimum cellular nutrition.

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Properties and Characteristics of BAC

Whole food – In natural and holistic nutrition it is certain that whole foods are the way nature meant for us to nourish ourselves and that quality not quantity counts. For example, a minuscule amount of Vitamin C as it occurs in the whole orange or green pepper is tremendously more nutritionally functional than a mega dose of isolated ascorbic acid.

Organic – The “Bio” in Bio-Algae Concentrates means that it is of a living organism, that it is not isolated or separated or synthetic or chemical. It is grown without the use of synthetic fertilizers, pesticides, and without antibiotics, growth hormones or other dangerous additives.

Micro food – This is a key characteristic of BAC that explains why such nutritional power can be reside in such a small quantity. BAC’s algae are selected microalgae that hold extraordinary nutritional value for their size. The types of microalgae in BAC are invisible to the naked eye while they deliver more nutrients than any visible food particle. Furthermore there is no extraneous material in these microalgae like fiber, fat, bulk and water. That makes BAC extremely digestible, non toxic and with minimal assimilation and elimination burden for the body. BAC is pure energy. It is the food that planktons live on; even salmon and some whales consumed them.

Complete – Most foods, like an apple are whole within themselves. But an apple does not contain many of the required nutrients that we need to sustain life. BAC is not only whole, but it is also the most complete food on earth containing amounts of all daily required nutrients and thousands more. There are over 5,000 known nutrients in BAC including Vitamins A, B, C, D, E, and K, all known minerals and trace elements, all known amino acids, a full protein makeup, chlorophyll, an array of mixed carotenoid antioxidants and over 4,000 enzymes.

Balance – There are four microalgae in BAC. Each alga is a whole food and is naturally balanced within itself as most food is. However, anytime you mix different foods together you must be concerned with the chemical interactions as per the science of food combination. For example, eating watermelon over a steak is a nutritional disaster that will cause digestion problems. It took 9 years of intensive research to formulate the optimum balance found in BAC, patiently selecting the most compatible algae amongst 1,000 investigated.

Bioavailability – BAC has an exceptionally high overall utilization ratio with no resulting toxicity. For example, its human active proteins have a 95% net utilization ratio while its calcium has a net utilization ratio over 90%. Several of its nutrients like beta carotene, alpha carotene and astaxanthin are proven to penetrate the blood brain barrier. This sort of bioavailability and net utilization is possible because of the mentioned previous characteristics; whole food, organic, complete, micro food and balance.

Synergy – At the molecular level, synergy is real. Synergy is what makes a violinist a virtuoso, and a string orchestra the Boston Philharmonic. Once the 5,000 nutrients in BAC are subjected to digestive enzymic breakdown, they further explode into 50,000

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sub nutrients and millions of sub molecules synthesized during digestion as enzymes, proteins and other molecules that are generated at the mouth as amylase, at the pancreas as protease, disassemble and re-organized further at liver and assimilated into the blood and distributed within seconds by the flow of blood across the entire body to nourish trillions of cells.

What are the benefits of consuming BAC?

We are energy beings. We live off the energy that we derive from the foods we eat. When the cells of the body receive the nutrients and the resulting energy that they need, they like good virtuoso will perform their multitude of cellular metabolic activity; growth, repair, cleansing, regeneration and more. When each cell of the organ performs its job well, then the organ will have a fighting chance to perform its metabolic activities such as blood sugar regulation in the good example that is the pancreas. But as per the discussion above, let's not forget that cellular activities and organ metabolic functions are governed by the glandular level which itself is overseen by the Genius.

That nutrient(s) in BAC efficiently nourish the cells of the body including those cells of the Genius, there is no doubt. Several phytonutrients and pigments found in BAC like beta carotene, alpha carotene and astaxanthin have been proven in several human clinical trials to easily penetrate the blood brain barrier, the blood iris barrier, the cerebellum wall, etc.

When the Genius within is awakened, like any good commander, its first mission will be to restore the balance within his team, the endocrine glands, the guardians of health. When the endocrine glands are tasked by the Genius they have no choice but to obey the hormonal commands. These glands are in most part responsible for triggering the metabolic activity of the various organs and systems. At that level we can mention a few such as; blood insulin level, various pH levels, cardiac function, the selenium and calcium activities, and myriads more. When we "Awaken the Genius within", when our metabolic systems regenerate and start to function well, we will derive the symptoms of good health instead of symptoms of disease:

Endocrine Homeostasis

Energetic Coherence

Improved Memory and Neurologic Function

Improved Cellular Repair including that of RNA and DNA

Prevention of Tumorigenesis

Increased Assimilation and Absorption of Nutrients

Improved Detoxification and Elimination

Improve Cardiovascular Function

Enhanced Nucleotide Production

Balances Blood Sugar

Enhanced Cellular Glucose Uptake

Protection from Free Radicals

Increased Energy

Enhanced Libido, Fertility, Fecundity and Viability

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References:

- The Magic of Bio-Algae Concentrates – R. Thomas, M. Kiriac, - Complementary Wellness Publishing, 2001 – www.michaelkirac.com
- The Effects of Bio-Algae Concentrates on Poultry - an Industrial Study – M. Kiriac, R. Thomas, 2002 – found in APPENDIX “A”
- The Magic is BAC – www.themagicisbac.com, in DRAFT on the World Wide Web - to be published in paperback in summer of 2008
- A perspective on the utilization of mono and multi cellular algae preparation in zoo-technology – abstract paper presented at 1996 Pittsburgh, USA, symposium, M. Kiriac, 1996

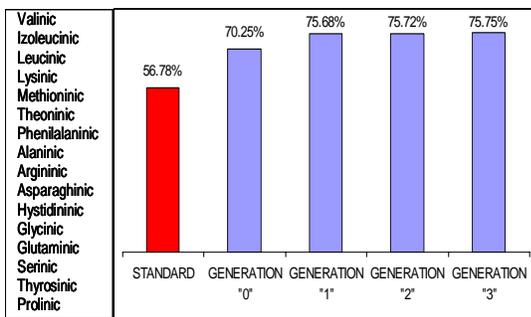
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APPENDIX "A"

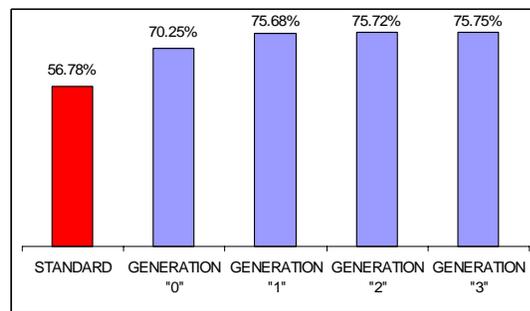
NORTH AMERICAN RESEARCH - THE EFFECTS OF BIOPREPARATION™ ON
POULTRY - AN INDUSTRIAL STUDY

The purpose of this industrial study was to reproduce for the North American audience the results obtained with BAC in Moldova during the period from 1987 to 1996. This small scale study was conducted during 1999 and 2000 in cooperation with Montreal's McGill University's Agricultural Branch. Starting with 12,000 test animals, the population progressively increased to 18,000, 23,000 and finally 33,000 heads. The economical benefits are not presented.

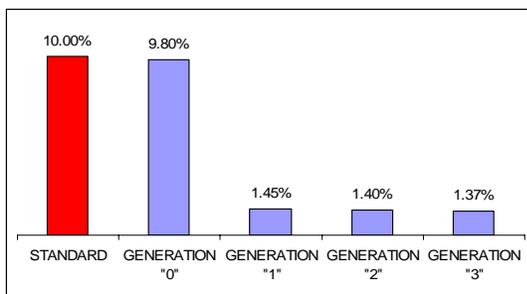
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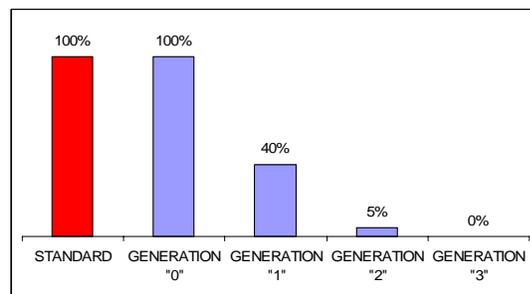
Increased albumin content



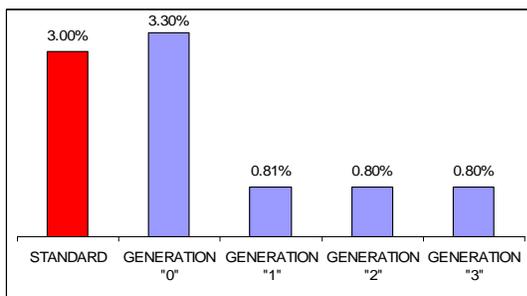
Increased amino acids content



Reduction in birth mortality



Reduction in fat content



Elimination of antibiotic