GLOBAL COUNTRY OF WORLD PEACE

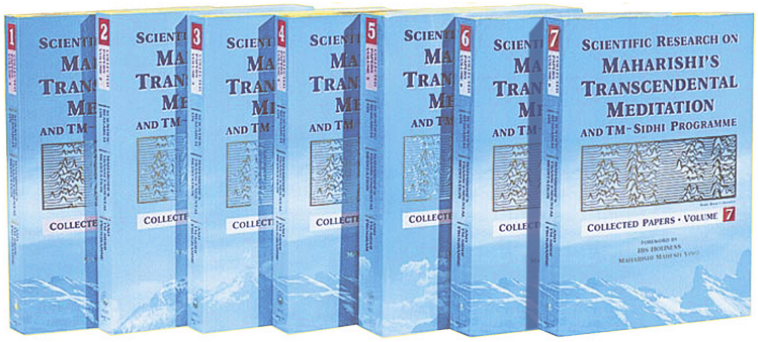
Programs to Bring Life into Harmony with Natural Law and Raise Every Nation to Invincibility

DEPARTMENT OF AGRICULTURE

Producing Maharishi Vedic Organic Agricultural Products

SCIENTIFIC RESEARCH FINDINGS

Verifying that the highest goals of the Department of Agriculture can be achieved fully and practically by applying the programs of Maharishi's Vedic Science



More than 600 scientific research studies, conducted at over 250 universities and research institutes in 33 countries, confirm the benefits of Maharishi's Transcendental Meditation and TM-Sidhi program for every area of life. These studies have been reprinted from the scientific journals in 7 volumes of Collected Papers.

Department of Agriculture

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The following research findings on the Transcendental Meditation and TM-Sidhi program, selected from the more than 600 research studies, are particularly significant for improving the quality of life of the farmer and society. The numbers in parentheses after the finding refer to the publication references of the original research papers, which are listed at the end of this document.

The development of individual and collective consciousness through this program raises individual life to enlightenment and raises the nation to the level of invincibility, characterized by happiness, health, progress, prosperity, and peace.

1. Developing the Total Brain Functioning and Good Health of the Farmer

Total Brain Development

Sample research findings indicating the growth of total brain functioning include the following:

- Increased use of hidden brain reserves. (1)
- Increased integration of brain functioning during periods of Transcendental Consciousness in Transcendental Meditation, as measured by greater electroencephalographic (EEG) coherence or orderliness over all areas of the brain and all frequencies of EEG activity. (2)
- Maximum EEG coherence is found at the moment the body lifts off the ground during Yogic Flying, indicating that the integrated brain functioning characteristic of Transcendental Consciousness is stabilized in activity. (3)
- Increased cerebral blood flow widely throughout the cortex (both frontal and posterior regions) during Transcendental Meditation, which contrasts to an increase in cerebral blood flow only in very isolated areas during usual cognitive activities. (4)
- Greater efficiency and integration of brain functioning underlying cognitive processes, as indicated by faster response of the brain in cognitive and sensory processing of stimuli. (5)

Growth of Good Health

Among the many research findings demonstrating improved health, important practical results for the profession of farming include the following:

- Greater Integration in the Overall Functioning of the Brain, the Peripheral Nervous System, and Neuroendocrine Processes, as Indicated by Faster

Recovery of the Autonomic Nervous System from Stress, More Adaptive Neuroendocrine Response to Stress, and Improvement in Physiological, Cognitive, and Behavioral Abilities that Usually Decline with Aging (6)

- Decreased Hospitalization (7)
- Decreased Physician Expenses (8)
- Decreased Blood Pressure in Hypertensive Subjects (9)
- Decreased Serum Cholesterol Levels in Normal and Hypercholesterolemic Patients (10)
- Improvements in Patients with Angina Pectoris: Improved Exercise Tolerance; Increased Maximum Workload (11)
- Reduction of Atherosclerosis (12)
- Improvements in Patients with Bronchial Asthma: Reduced Severity of Symptoms, Reduced Airway Resistance (13)
- Decreased Use of Cigarettes, Alcohol, and Nonprescribed Drugs (14)
- Benefits for the Elderly Demonstrating Reversal of Ageing: Increased Longevity (Higher Survival Rate) (15)
- Hormone Levels and Blood Analysis Indicating Younger Biological Age (16)
- Increased Psychological Health (17)

2. Developing the Farmer's Creativity and Clarity of Mind

- Increased Creativity—Greater Originality in Problem-Solving, Greater Fluency of Ideas, and Greater Flexibility of Thinking in Solving Problems (18)
- Comprehensive Improvement in Intellectual Functioning—Increased Creativity; Increased Field Independence, a Measure of Broad Comprehension Together with the Ability to Focus Sharply; Increased Practical Intelligence, by which One Sees the Practical Consequences of Actions; Increased Mental Efficiency; and Increased Fluid or General Intelligence (19)
- Improved Problem-Solving Ability (20)
- Increased Innovation (21)
- Improved Memory (22)
- Faster Processing of Cognitively Complex Information (23)
- Increased Clarity and Flexibility of Perception (24)
- Increased Vigilance and Improved Capacity for Selective Attention (25)

3. Developing the Farmer's Skill in Action

- Increased Job Effectiveness (26)
- Decreased Stress during Task Performance—Greater Physiological Calmness in the Midst of Job Activity (27)
- Increased Effectiveness (28)

- Increased Time Competence: Increased Ability to Think and Act Efficiently in the Present (29)
- Faster Reactions (30)
- Increased Energy and Enthusiasm (31)
- Increased Vigor (32)
- Decreased Fatigue (33)
- More Effective Interaction with the Environment: Improved Resistance to Stress (34)
- Increased Job Satisfaction (35)
- Improved Work and Personal Relationships (36)
- Improved Relations with Co-Workers and Supervisors (37)
- Increased Sociability (38)
- Greater Marital Adjustment (39)
- Greater Family Health (40)
- Enhanced Inner Well-Being (41)
- Increased Contentment (42)

4. Creating an Orderly, Harmonious Society, the Basis of Balance in Nature

Many research studies verify that when large groups of individuals practice the Transcendental Meditation and TM-Sidhi program with Yogic Flying together in one place, they radiate a measurable influence of coherence and harmony in the whole society. The following are selected findings related to economy, quality of life, and balance in nature.

Decreased Crime and Turbulence in Society and Reduction of Conflict

- Decreased Crime (43)
- Decreased Violent Crime (44)
- Increased Progress towards Peaceful Resolution of Conflict (45)
- Decreased War Intensity and War Deaths (46)

Improved Quality of Life

- Improved Quality of Life in a State as Measured by Improvement on an Index Including Total Crime Rate, Mortality Rate, Motor Vehicle Fatality Rate, Auto Accident Rate, Unemployment Rate, Pollution, Alcoholic Beverage Consumption Rate, and Cigarette Consumption Rate (47)
- Improved Quality of National Life as Measured by Improvement on a Weekly Index of Motor Vehicle Fatalities, Homicide, and Suicide (48)
- Improved Quality of National Life as Measured by Improvement on a Monthly Index Including Violent Fatalities (Motor Vehicle Fatalities, Homicide, and Suicide), Cigarette Consumption, and Worker-Days Lost in

Strikes (49)

- Improved Quality of National Life as Measured by Improvement on a Monthly Index Including Motor Vehicle Fatalities, Homicide, Suicide, Deaths Due to Accidents (other than Motor Vehicle), Notifiable Diseases, Alcohol Consumption, and Cigarette Consumption, Controlling for Economic Changes (50)

Improved Economic Trends

- Improved Economy in a State as Measured by Decreased Unemployment (51)
- Improved National Economy as Measured by Improvement on a Monthly Index of Inflation and Unemployment, Controlling for Changes in Major Economic Variables (52)
- Increased National Economic Confidence, Optimism, and Prosperity (53)

Improved International Relations

- Increased International Harmony (54)
- Improvement in Domestic Affairs and International Relations for Major Trouble-Spot Countries (55)
- More Positive, Evolutionary Statements and Actions of Heads of State and Greater National Support for Their Policies and Leadership (56)

Increasing Balance in Nature

- Alleviation of Drought through Large Groups of Individuals Learning the TM-Sidhi Program (57)

5. Maharishi Vedic Organic Agriculture— Most Vital and Nutritious Food

Maharishi Vedic Organic Agriculture makes use of the knowledge of Natural Law available in modern science and Maharishi Vedic Science to produce food that is not only organic—which means free from the poisonous chemicals used in contemporary industrial agriculture—but Vedic organic, which means making use of Vedic technologies to produce food that has the most vitality and nutrition for health of the whole population.

Research in recent years has confirmed the health benefits of organic agriculture. For example, organic fruits, vegetables, and grains have higher levels of essential nutrients (58). Organic food not only contains fewer pesticides, but consumption of organic food has been shown to quickly eliminate poisonous residues in school children (59). Organic food also helps prevent the risks to infant health and development posed by exposure by infants and even their parents to poisonous herbicides and pesticides (60). Organic farming, compared to conventional chemical farming, is found to be both more economically sustainable and more environmentally sustainable. (61)

An example of the purity and additional nutritional benefit of Maharishi Vedic Organic Agriculture can be seen in the case of Maharishi Vedic Honey. The purity of Maharishi Vedic Honey is confirmed by research indicating that in testing seven samples for over 40 chloro-pesticides and phosphorous pesticides, none of the pesticides were detectable. (62) One important measure of nutritional value is evaluation of the natural antibacterial property of honey: In contrast to another brand of honey well-known for its strong antibacterial property, research found that Maharishi Vedic Honey further reduced bacteria count by 90% in one hour in a 20 times diluted honey solution; similar results were found for other dilution ratios and time intervals (63). Other research studies found Maharishi Vedic Honey to have very high levels of antioxidants (protection from free radical damage to the body) and uniquely high vital quality. (64)

Scientific Research References for Findings Listed in This Document

(1) *Human Physiology* 25: 171–180, 1999.

(2) *Psychosomatic Medicine* 46: 267–276, 1984.

(3) *Scientific Research on Maharishi's Transcendental Meditation and TM-Sidhi Programme: Collected Papers, Vol. 1*: 705–712, 1989; *International Journal of Neuroscience* 54: 1–12, 1990.

(4) *Physiology & Behavior* 59: 399–402, 1996.

(5) *Psychophysiology* 26: S29 (Abstract), 1989; 27: S23 (Abstract), 1990; 31: S98 (Abstract), 1992; *Dissertation Abstracts International* 53(6): 3198B, 1992; *Zeitschrift für Elektroencephalographie und Elektromyographie EEG-EMG* 7: 99–103, 1976.

(6) *Psychosomatic Medicine* 35: 341–349, 1973; *Psychoneuroendocrinology* 22: 277–295, 1997; *Journal of Personality and Social Psychology* 57: 950–964, 1989.

(7) *Psychosomatic Medicine* 49: 493–507, 1987. See also *The American Journal of Managed Care* 3: 135–144, 1997.

(8) *American Journal of Health Promotion* 10: 208–216, 1996; *American Journal of Health Promotion* 14: 284–291, 2000. See also *The American Journal of Managed Care* 3: 135–144, 1997.

(9) *Hypertension* 26: 820–827, 1995; *Hypertension* 28: 228–237, 1996.

(10) *Harefuah, the Journal of the Israel Medical Association* 95(1): 1–2, 1978; *Journal of Human Stress* 5(4): 24–27, 1979; *Journal of Biomedicine* 1: 73–88, 1980.

(11) *The American Journal of Cardiology* 77: 867–870, 1996.

(12) *Stroke* 31: 568–573, 2000.

(13) *Clinical Research* 21: 278, 1973; *Respiratory Therapy: The Journal of Inhalation Technology* 3: 79–80, 1973; *Respiration* 32: 74–80, 1975.

(14) *Japanese Journal of Public Health* 37 (10 Suppl.): 729, 1990; *Anxiety, Stress and*

Coping: An International Journal 6: 245–262, 1993; *Alcoholism Treatment Quarterly* 11: 13–87, 1994.

(15) *Circulation* 93: 19, 1996; *American Journal of Cardiology* 95: 1060–1064: 2005. See also *Journal of Personality and Social Psychology* 57: 950–964, 1989.

(16) *Journal of Behavioral Medicine* 15: 327–341, 1992; *Alternative Therapies in Clinical Practice* 4: 35–37, 1997.

(17) *Journal of Counseling Psychology* 19: 184–187, 1972; *Gedrag: Tijdschrift voor Psychologie* 4: 206–218, 1976; *Journal of Counseling Psychology* 20: 565–566, 1973; *Journal of Clinical Psychology* 33: 1076–1078, 1977; *Läkartidningen* 74(47): 4212–4214, 1977; *British Journal of Psychology* 73: 57–68, 1982; *Zeitschrift für klinische Psychologie* 7: 235–255, 1978; *Criminal Justice and Behavior* 5: 3–20, 1978; *Criminal Justice and Behavior* 6: 13–21, 1979; *Dissertation Abstracts International* 43(2): 539B, 1982; *Journal of Counseling and Development* 64: 212–215, 1985; *Psychological Reports* 51: 887–890, 1982; *Dissertation Abstracts International* 38(8): 3895B, 1978; *International Journal of Neuroscience* 46: 77–86, 1989; *Journal of Personality and Social Psychology* 57: 950–964, 1989; *Modern Science and Vedic Science* 1: 471–487, 1987; *Journal of Psychology* 124: 177–197, 1990; *Dissertation Abstracts International* 45(10): 3206B, 1985; *Journal of Social Behavior and Personality* 6: 189–247, 1991; *Dissertation Abstracts International* 51(10): 5048B, 1991; *Journal of Instructional Psychology* 22: 308–319, 1995.

(18) *The Journal of Creative Behavior* 13: 169–180, 1979. See also *Dissertation Abstracts International* 38(7): 3372B, 1978; *Modern Science and Vedic Science* 1: 471–487, 1987; *Dissertation Abstracts International* 56(6): 2178A, 1995.

(19) *Dissertation Abstracts International* 56(6): 2178A, 1995. See also *Gedrag: Tijdschrift voor Psychologie* 3: 167–182, 1975; *Dissertation Abstracts International* 38(7): 3372B, 1978; *College Student Journal* 15: 140–146, 1981; *Perceptual and Motor Skills* 62: 731–738, 1986; *Personality and Individual Differences* 12: 1105–1116, 1991; *Higher Education Research and Development* 15: 73–82, 1995.

(20) *Dissertation Abstracts International* 38(7): 3372B, 1978.

(21) *Dissertation Abstracts International* 38(7): 3372B, 1978.

(22) *Journal of Personality and Social Psychology* 57: 950–964, 1989.

(23) *Psychophysiology 26: 529 (abstract), 1989.*

(24) *Memory & Cognition 10: 207–215, 1982.*

(25) *Personality and Individual Differences* 12: 1105–1116, 1991.

(26) *Academy of Management Journal* 17: 362–368, 1974. See also *Anxiety, Stress and Coping: An International Journal* 6: 245–262, 1993.

(27) *Anxiety, Stress and Coping: An International Journal* 6: 245–262, 1993. See also *International Journal of Neuroscience* 29: 45–55, 1986.

(28) *Zeitschrift für klinische Psychologie* 7: 235–255, 1978; *Anxiety, Stress and*

Coping: An International Journal 6: 245–262, 1993.

(29) *Journal of Counseling Psychology* 20: 565–566, 1973; *Journal of Social Behavior and Personality* 6: 189–247, 1991.

(30) *Personality and Individual Differences* 12: 1105–1116, 1991

(31) *Dissertation Abstracts International* 38(7): 3372B, 1978; *Dissertation Abstracts International* 38(8): 3895B, 1978; *Anxiety, Stress and Coping: An International Journal* 6: 245–262, 1993.

(32) *Zeitschrift für klinische Psychologie* 7: 235–255, 1978.

(33) *Anxiety, Stress and Coping: An International Journal* 6: 245–262, 1993.

(34) *Psychosomatic Medicine* 35: 341–349, 1973; *International Journal of Neuroscience* 46: 77–86, 1989.

(35) *Academy of Management Journal* 17: 362–368, 1974; *Anxiety, Stress and Coping: An International Journal* 6: 245–262, 1993.

(36) *Anxiety, Stress and Coping: An International Journal* 6: 245–262, 1993.

(37) *Academy of Management Journal* 17: 362–368, 1974

(38) *College Student Journal* 15: 140–146, 1981; *Zeitschrift für klinische Psychologie* 7: 235–255, 1978; *Dissertation Abstracts International* 38(8): 3895B, 1978.

(39) *Psychological Reports* 51: 887–890, 1982.

(40) *Dissertation Abstracts International* 45(10): 3206B, 1985.

(41) *Modern Science and Vedic Science* 1: 471–487, 1987; *Journal of Personality and Social Psychology* 57: 950–964, 1989.

(42) *Gedrag: Tijdschrift voor Psychologie* 4: 206–218, 1976; *Zeitschrift für klinische Psychologie* 7: 235–255, 1978.

(43) *Journal of Crime and Justice* 4: 25–45, 1981; *The Journal of Mind and Behavior* 8: 67–104, 1987; *The Journal of Mind and Behavior* 9: 457–486, 1988; *Journal of Conflict Resolution* 32: 776–812, 1988; *Psychology, Crime, and Law* 2: 165–174, 1996.

(44) *The Journal of Mind and Behavior* 9: 457–486, 1988; *Social Indicators Research* 47: 153–201, 1999.

(45) *Scientific Research on Maharishi's Transcendental Meditation and TM-Sidhi Programme: Collected Papers, Vol. 4*: 2532–2548, 1989; *Dissertation Abstracts International* 49(8): 2381A, 1989; *Journal of Offender Rehabilitation* 36: 283–302, 2003.

(46) *Journal of Conflict Resolution* 32: 776–812, 1988; *Scientific Research on Maharishi's Transcendental Meditation and TM-Sidhi Programme: Collected Papers, Vol. 4*: 2532–2548, 1989; *Dissertation Abstracts International* 49(8): 2381A, 1989.

(47) *The Journal of Mind and Behavior* 8: 67–104, 1987.

(48) *Social Indicators Research* 22: 399–418, 1990; *Dissertation Abstracts International* 50(5): 2203B, 1989; *Psychological Reports* 76: 1171–1193, 1995.

(49) *Dissertation Abstracts International* 50(5): 2203B, 1989; *Psychological Reports* 76: 1171–1193, 1995.

(50) *American Statistical Association, 1996 Proceedings of the Social Statistics Section,* pp. 38–43. Alexandria, VA: American Statistical Association, 1996.

(51) *Dissertation Abstracts International* 51(12): 6155B, 1991.

(52) *Proceedings of the American Statistical Association, Business and Economics Statistics Section*, pp. 799–804 (Alexandria, Virginia: American Statistical Association, 1987); *Proceedings of the American Statistical Association, Business and Economics Statistics Section*, pp. 491–496 (Alexandria, Virginia: American Statistical Association, 1988); *Proceedings of the American Statistical Association, Business and Economics Statistics Section*, pp. 565–570 (Alexandria, Virginia: American Statistical Association, 1989); *Proceedings of the Midwest Management Society*, pp. 183–190 (Chicago, Illinois: Midwest Management Society, 1989).

(53) *Journal of Conflict Resolution* 32: 776–812, 1988.

(54) *Scientific Research on Maharishi's Transcendental Meditation and TM-Sidhi Programme: Collected Papers, Vol. 4*: 2532–2548, 1989; *Social Science Perspectives Journal* 2(4): 80–94, 1988; *Proceedings of the American Statistical Association, Social Statistics Section*, pp. 297–302 (Alexandria, VA: American Statistical Association, 1990); *Journal of Offender Rehabilitation* 36: 283–302, 2003.

(55) *Scientific Research on Maharishi's Transcendental Meditation and TM-Sidhi Programme: Collected Papers, Vol. 4*: 2532–2548, 1989.

(56) *Social Science Perspectives Journal* 2(4): 80–94, 1988; 'Transforming political institutions through individual and collective consciousness: The Maharishi Effect and government', paper presented at the annual meeting of the American Political Science Association, Washington, D.C., August 1997.

(57) *Invincible Defence: Creation of a Prevention Wing in the Military of Every Nation, Bringing National Law into Alliance with Natural Law, Conference Proceedings, 11–14 November 1994,* pp. 10–12. Vlodrop, The Netherlands: Maharishi Vedic University.

(58) *Food Additives and Contaminants* 19: 427–446, 2002.

(59) *Environmental Health Perspectives* 109: 299–303, 2001; 111: 377–382, 2003; 114: 260–263, 2006.

(60) *Environmental Health Perspectives* 105: 308–314, 1997; 112: 69–78, 2004; 112: 631–635, 2004.

(61) *Nature* 410: 926– 930, (19 April) 2001.

(62) Quality Services International GmbH, Bremen, Germany: Ref. 58727 (10 September 2003); Ref. 58728 (10 September 2003); Ref. 62467 (20 November 2003); Ref. 68223 (26 February 2004); Ref. 71181 (16 April 2004); Ref. 71829 (10 May 2004); Ref. 75091 (16 June 2004).

(63) Food Research Laboratory, Tokyo Food Sanitation Association, Tokyo, Japan (Reference number 01911, 16 September 2003).
(64) Antioxidants: Research Conducted by Brunswick Laboratories, Wareham, MA, USA (Ref. B-1590/8-28-03; B-1670/10-19-03; B-1741/11-10-03; B-1962/2-26-04; B-2058/4-2-04; B-2106/4-22-04); Vital quality: Society of Goetheistic Research (23 June 2004).