

INTERNATIONAL JOURNAL OF RESEARCHES IN BIOSCIENCES, AGRICULTURE & TECHNOLOGY © VISHWASHANTI MULTIPURPOSE SOCIETY (Global Peace Multipurpose Society) R. No. MH-659/13(N)

www.vmsindia.org

HERBAL SUPPLEMENTS USED TO IMPROVE PERFORMANCE OF SPORTSMEN

¹Jakhi P.S. and ²Jagtap D.K.

¹Department of Botany, Govt. Institute of Science, R. T. Road Civil Lines, Nagpur (M.S) India
²Department of Botany, VidyaPratisthan's ASC College Baramati, Pune (M.S) India
Email: jakhips@gmail.com

Abstract: Now a day's Younger generation, Athletes, Wrestlers and other sportsman's are very conscious about physical health and stamina. They are working hard for improving their performance in their field. While discussing with health and performance of sports persons with sportsman's of Phupere village of Sangli District, Dharpudi village of Satara district and Ajara village of Kolhapur district information about 34 suchherbal supplements recorded. The details are discussed in present work. These supplements are now also called asergogenic aids.

Keywords: Herbal supplements, Performance of Sportsman, Health conscious

Introduction:

Plants have immense role in human life, plants directly or indirectly used for various purposes. Food, Food additives, Animal food, Bee plants, Materials those which furnish, Fiber, Timber, Gums, Resins, and Industrial or Essential oils, Fuels, Social and Environmental uses and many plants used by sports persons to improve physical fitness.

Indian flora lists a number of plants, herbs and fruit that can be used to improve a person's health, stamina, concentration, and overall physical condition of health. A lot of interest is being generated in adapting these herbal remedies for medicinal purposes, but there is another aspect that has not been thought about.

Scientific tests are slowly verifying the positive effects of these various herbs on the human body. Athletes and sportspersons normally using various herbs maintaining health and physical conditions of body. The possibility of using Ayurveda to improve a person's physical capabilities for the purpose of sport was discussed at the Indian Sport's Congress in 1994. However, since then, not much work has been done in this area, with most of the research work on herbs still being confined to the field of medicine.

Sangli, Satara and Kolhapur districts are well known as health conscious districts of Western Maharashtra. Most of the young generation normally attentive as health conscious and take care about physical fitness many of them from rural background and good deal of knowledge about use of herbs for maintaining health. Many hrbs are widely used in traditional Indian medicine and are known to improve health. With a little bit of research, it should not prove

difficult to adopt these plants to improve the health of athletes and sportspersons. There is nut that is used by the Kani tribe in the state of Kerala in India that helps them to walk and climb long distances without getting tired. (http://www.diethealthclub.com/herbs-and-natural-cures/safe-performance-boosters.html).

While discussing with health and performance of sports persons those who arel working with Indian Railway, Maharashtra Police, ONGC, Indian Army as athlete and Wrestler many of the plants found suitably used by these persons to improve health

Material and Method:

This study was conducted during summer and winter 2015 and 16with 20 Wrestlers and Athlete those are now working in Indian Railway, Maharashtra Police, ONGC, and Indian Army. They are Phupere, village of Sangli District, Dharpudi, village of Satara district and Ajara, village of Kolhapur district.

The material and methods utilized as per following steps-

The methodology of the present work was adopted from some of the earlier workers like Jain, (1987, 1988, 1989); Roy (1989); Masih (2000); Jain and Singh (1994) and Gadgil et. al. (2000, 2005, 2005a), Jakhi and Kalkar (2013).Interactions were carried out with 20 sport persons between ages 16-32. Plants used by sportsman were identified by using Flora of Bombay presidency by T. Cook, Flora of Maharastra Karthikeyan and singh and other standard literature.

The methodology of the present study has been divided into following headings.

- 1. Questionnaire A simple questionnaire of yes / no type was prepared which is related to herbal supplements used by sportsman and responses were recorded.
- 2. Survey Field survey was arranged in summer and winter during 2015 and 2016 at Phupere, village of Sangli District and Dharpudi, village of Satara District for observation of plants mentioned by participants.
- 3. Group discussion- Group discussion was conducted with 20 sport persons and local herbal knowledgeable person.

Documentation of available data

All collected data from above methodology documented in table (Table 1.). Plants used by these people to improve health performance described with its binomial name, local name, Marathi name, value of plant for maintaining fitness.

Observations and Discussion:

Table-1. Plants used by sportsman to improve physical health.

Sr. No.	Scientific name of plant	Local name	Plant part used to improve physical fitness and purpose
1	Annonasquamosa L.	Sitaphal	Fruit- for nutritional purpose
2	Brassica campestris L.	Rai, Mohari, Sarsoo	Young leaves as Vegetable and Older leaves warmed and bandaged on swelling portion of body.
3	Cappariszeylanica L.	Waraklya, Govind- phal, Waghati	Fruit- for nutritional purpose
4	Aeglemarmelos (L.) Corr.	Bel	Mature fruits as Muramba used during summer
5	Azadirachtaindica A. Juss.	Kadulimb, Nimb, Kadunimb, Neem	Leaves, for medicated bath
6	ZiziphusmauritianaLamk.	Ber, Bor	Fruit for nutritional purpose
7	BuchananialanzanSpreng.	Char, Charoli.	Fruit for nutritional purpose
8	Mangiferaindica L.	Amba, Aam	Fruit for nutritional values
9	Semicarpusanacardium L. f.	Bibba	Burnt oil of nut with milk and sugar to remove body ache after prolonged exercise
10	MoringaoleiferaLamk.	Mongana, Shewaga	Fruits and leaves as vegetable and source of dietary fiber.
11	Arachishypogaea L.	Bhui-mug	Seeds source of energy.
12	Cicerarietinum L.	Channa, Harbhara	Young and mature seeds for nutritional values
13	Pongamiapinnata (L.) Pierre.	Karanj	Young offshoots for tooth cleaning.
14	Sesbaniagrandiflora(L.) Poir.	Heti, Hadga	Flowers as vegetable
15	Trigonellafoenum-graecum L.	Methi	Whole young plant except root as vegetable.
16	Cassia fistula L.	Amaltash, Bahava	Flowers as vegetable
17	Cassia tora L.	Tarota, Takala.	Young offshoots as vegetable.
18 19	Acacia nilotica (L.) subsp.	Babhul	Bark for mouth wash.
	Indica (Benth.)		
20	Eucalyptus globules Labill.	Nilgiri	Leaves against bad breath.
21	Psidium guajava L.	Jambh, Jamb, Peru	Fruits as source of energy, nutritional value and decoction of leaf for mouth wash
22	Syzygium cumini (L.) Skeels.	Jambhul, Jamhal	Ripened fruits for nutritional values.
23	Carica papaya L.	Papaya, Papai, Popai	Ripened fruits for nutritional values.
24	Gardenia resinifera Roth.	Dikamali	Gum exuded for increasing strength of gums.
25	Tridaxprocumbens L.	Kambarmodi, Kudkudi, Dagadipala	Crushed leaves are bandaged on swollen parts.
26	Carrisacarandus L.	Karvanda, Karwand	Fruits as source of energy during summer
27	Hygrophila schulli (Buch Ham.) M. R. Almeida & S. M. Almeida	Kolsundra, Kolsindra, Katekolsindra, Talimkhana	Seeds powdered and mixed with roasted wheat flour and mixed with jagguary and used as tonic.
28	Ocimum sanctum L. synOcimumtenuiflorum L.	Tulas	Crushed leaves with few quantity of common salt for increasing immunity.
29	Phyllanthusemblica L.	Awla, Awala, Avala	Fruits- Fresh and in the form of muramba to increase immunity and physical power.
30	Curcuma longa L.	Haldi, Halad	Powder in the form of paste applied on external body swelling.
31	Curculigoorchioides Gaertn.	Bhuimadi, Kalimusali	Root powder with milk and sugar as restorative tonic.
32	Asparagus racemosus Willd.	Shatavari, Shatmuli	Root powder with milk and sugar as restorative tonic.
34	Triticumaestivum L.	Gahu	Seed flour as source of Chapati, source of protein and Dietary fiber.

Interview with these sport persons revel that they are cautious about time to relax, good healthy diet, Avoid harmful substances, Train harder and smarter and also consult with professional experts, these things with herbal supplements benefits every part of the body, including the mind. Exercising can help them look better, lose weight and lower the risk of some diseases. Sports persons use variety of herbs for nutritional purpose, as medicine, as restorative tonic, mouth wash, and source of energy. Similar results for different herbs observed by Burdet al. 2011, for different plants and mentioned them asergogenic aidsfor plants.

Summary and Conclusion:

From the above data following conclusions can be drawn,

Sports personshavegood deal of knowledge about the plantsand they utilize plants or their parts to maintain physical balance of body very wisely.

Local herbal resources used very carefully by considering seasonal changes and requirement of body by sportsman.

For further research values of these plants should be scientifically tested.

Plants or their parts either used in raw form or with other material in specific quantity. Sportsman's are more health conscious.

Many herbs found on the market today have a long history of use as traditional medicines

The challenge for athletes, coaches, and health professionals working with athletes is finding reputable research and resources to support or refute the claims for herbs.

It is essential to include and ensure that an herb is safe, confirming that it contains the useful active ingredients, and determining the appropriate dosage scientifically.

Acknowledgement:

Both authors are very much thankful to Mr. Anandrao Gaikwad, Kiran Gaikwad, U. T. Mane and others for active participation, healthy discussion and sharing knowledge about use of plants for physical fitness.

References:

1) Burd NA, Jeukendrup A, Reid MB, Burke LM, Stear SJ, Castell LM.A-Z of nutritional supplements: dietary supplements, sports nutrition foods and ergogenic aids for health and performance-part 26.Br J Sports Med. 2011 Nov;

- 45(14):1163-4. doi: 10.1136/bjsports-2011-090560.
- 2) Gadgil, M.; Achar, K.P; Bhat, H; Bhat P. R; Deshmukh, Shubhada; Dolke, A; Dolke, Y.N; Edlabadkar, V; Gogulear, S; Gokhale, Y; Gunaga, S; Gundappa, B.V; Heda, N; Hiralal, M.H; Inamdar, K; Malhotra, C; Naik, M.B; Nalini, G. Rekha; Pandharipandhe, K;Patgar, S. S. Ramkrishnappa, Rao; Sivan V; Srinidhi, S; Sujatha, S; Subramaniyan K.A; Tofa, D and yetiraju. 2005 People's Biodiversity Register A Methodology Manual. Available online on http://ces.iisc.ernet.in /hpg/cesmg/.
- 3) Gadgil, M.; Gokhale, Y; SeshgiriRao, P. R. 2005a. People's Biodiversity Register available online on http://ces.iisc.ernet.in/biodiversity/sahyadri_enews/newsletter/iss ue15/article.html
- 4) Gadgil, M; Rao, P. R. S; Utkarsh, G; Pramod, P, and Chhatre, A; 2000. New meanings for old knowledge: People's Biodiversity Register. Ecological Applications 10 (5) pp.1307-1317.
- 5) **Jain, S. K. 1987.** Ethnobotany –its scope nd various sub disciplines. In manual of Ethnobotany, (Ed.) S. K. Jain Scientific publishers Jodhpur.1-11.
- 6) **Jain, S. K. 1988.** Detailed proforma for field work in Ethnobotany. Ind. Training course I Ethnobotany 10-18 March 1988 at Lucknow.
- 7) **Jain, S. K. 1989.** Methods and approaches in Ethnobotany. Society of Ethnobotanist, Lucknow, pp. 1-192.
- 8) **Jain, S.P. and Singh, S.C. 1994.** Ethno Medico Botanical Survey of Ambikapur, Madhya Pradesh. IV ICE Lucknow Nov. 17-21.
- 9) **Jakhi, P. S. and Kalkar S. A. 2013.** Use of participatory method in preparation of inventory of economically and medicinally important plants, Int. Journal of Life Sciences 1:(3) 216-220.
- 10) **Masih S. K. 2000.** Diversity of ethnomedicianal wealth in Amarkantakplatau region (India). Vistas in Ethnobotany S. S. Khan (ed) 1:204-214 Indian Journal of Applied and Pure Biology Bhopal (MP)
- 11) **Roy, G. P. 1989.** Tribals and Ethnobotany of Abuj-Marh Reserve area of Bastar distt. Problem of wasteland and forest ecology (Ed) Pramod Singh, Ashish publishing house, New Delhi.328-338.
