

NUTRITION

Well-Fed Men Not Soft

► THE GOOD THINGS of life do not necessarily make softies of us.

The oft-quoted idea that modern civilization is growing weak and coddled is being refuted by a Finnish health doctor.

Basing his premise on performances of athletes during Olympic games, Dr. Martti J. Karvonen, director of the physiological department of the Finnish Institute of Occupational Health, Helsinki, said results of sports events show the relationship of nutrition to human efficiency.

Young men and women coming from the better-fed countries performed twice as well at the 1952 Helsinki Olympic games as those coming from countries with low-calorie diets, Dr. Karvonen told the World Food Congress in Washington, D. C.

A statistical analysis of results from the Olympic games showed that the number of points gained per person entered in the games' events was 30.3 for athletes from countries where average calorie consumption was between 3,000 and 4,000 per day. Those athletes coming from countries consuming 1,500 to 1,999 calories per day gained only 15.3 points in the games, he said.

A man from a primitive community seldom wins at international competitions, Dr. Karvonen said. He may have suffered from several handicaps in his life, one of them often being the lack of adequate nutrition.

It is harder to measure the effect of nutrition upon physical work in industry and labor. But the capacity for physical performance improved among heavy workers when they ate frequent meals of carbohydrate foods or a "balanced" breakfast containing substantial amounts of fat and protein.

Heavy workers should eat several small meals during the day, he advised. This is a system followed by marathon runners and distance skiers. Huge meals can sometimes endanger health, and cause fatigue and sleepiness.

• Science News Letter, 83:388 June 22, 1963

Proteins From Oil Seen

► OIL, which atomic energy is trying to get out of business, could get a new job: feeding the world.

Prof. Daniele Bovet, an Italian Nobel Prize winner, said proteins could be produced using oil as a source of carbon. Proteins are a basic element in the vital cells and a must in human diet.

The Italian professor said scientists in an oil refinery in Lavera, France, showed recently that proteins could be produced there at a competitive price. The cheapest proteins today are found in fish flour and soya flour.

Speed would be a major advantage in the use of oil as a source of carbon. Prof. Bovet indicated that industrial synthesis of proteins from oil could be 2,500 times faster than in animals. He said also that with only one percent of the world oil production, three million tons of proteins could

be obtained. This amount would fill the present demands.

Proteins are a very complex combination of carbon, hydrogen, nitrogen and oxygen, plus a few rarer elements such as iron. These elements form various amino acids, which in turn combine to make proteins.

Prof. Bovet, a director of Higher Institute of Health in Rome, addressed the World Food Congress in Washington, D. C., sponsored by the Food and Agriculture Organization of the United Nations.

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Take Better Care of Land

► TAKE BETTER CARE of land already being cultivated, the Agricultural Minister from Thailand, Gen. Surajit Charusreni advised the World Food Congress.

By careful planning and action, farmlands can raise more crops for a hungry world, he said.

By conservation of water, mechanized farming, use of fertilizers, pest and disease control, and promoting cooperation among farmers, he said, countries can meet their urgent need for food in a shorter length of time than by waiting for developments designed for use on new, untilled land.

Cultivating unexploited arable land is a slow, difficult and costly technique. However, this should be the aim of every country trying to step up its food production. He pointed out that about 12.5 acres of living space are available to every person on earth; only 1.1 acres are under cultivation, and another 2.65 could be farmed.

But in some countries, taking unused land for farming purposes presents difficulties. For instance, in Thailand, he said, increasing the area used for food crops would automatically cut into timber production, harm watersheds and upset some efforts of land and water conservationists.

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Do You Know?

The U. S. Department of Agriculture reports an increase in average *milk yield* from 4,508 pounds per cow in 1931 to 7,000 per cow in 1960 for the U. S. as a whole.

Strontium-90 may serve as a yardstick for measuring the burning rate of solid fuel in rockets.

Tiny *irregularities* in the surface finish of a road can cause automobiles going at sufficient speeds to hit the road with great force that may contribute to highway deterioration.

The *Delta* launch rocket is scheduled to lift future weather, astronomical and communications satellites into orbit.

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Questions

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BIOCHEMISTRY—What poison chemical has been found in smokers' bodies? p. 399.

MEDICINE—What are the four methods now used to keep patients from rejecting kidney transplants? p. 389.

NUTRITION—What is the source of the cheapest proteins today? p. 388.

PHYSIOLOGY—What is believed to be the function of brown fat in the animal body? p. 390.

TECHNOLOGY—How can water be kept fresh for long periods in cardboard boxes? p. 397.

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