## Gerry Lindgren -- How He Trains

by Fred Wilt

Gerry Lindgren, Rogers High School, Spokane, Washington, age 18.

Born March 9, 1946, 5'6" (1.68m) 118 lbs., (54 kg.) started racing in 1960 at age 14. Best Marks: 2-miles, 8:40.0; mile, 4:12.9; 880 yards, 1:58; 440 yards, 54.3. His 440 and 880 yards times are workout marks, and he is capable of much better. He has never been timed at 100 and 220 yards. Above marks were made before age 18.

**Pre-Race Warmup:** Jog between 2 and 3 miles in 20-25 minutes. Brief calisthenics. A few short sprints if space permits in the warmup area.

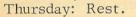
**General Training:** Lindgren's training is done with other members of the Rogers High School team. None of his team-mates have remotely approached his competitive times, even though they apparently train with a comparable volume and intensity. Most of his training is done over rough terrain on the outskirts of Spokane. Except for the day prior to and the day of competition, he arises at 5:00 a.m. and runs continuously for a full hour with team-mates. He runs for an additional two hours daily between 3:00 and 5:00 p.m. His workouts alter very little from one season of the year to another. He has never trained on repetitions of 110 and 220 yards, and does very little sheer sprint work. During one period in 1963 he trained briefly on 10 x 440 yards in 60 seconds, jog 440 yards recovery between, and broke his foot. He runs at least 100 miles per week, much of it is a continuous pace. Occasionally his runs take the form of severe fartlek, wherein he runs fast until the point of near exhaustion before jogging until recovered, and repeating.

Fall Training: Each of these evening workouts follow 7-8 miles of warmup.

Monday: 4-5 x 1.6 miles. Appropriate recovery walk-jog between.

Tuesday and Thursday:  $7-10 \ge \frac{3}{4}$  mile in sandpit area.

Wednesday: 20 mile run at speed of personal inclination.



Friday: Competition.

Saturday and Sunday: 15-20 miles running each day at steady speed.

Winter Training: Similar to Fall training, except that once per week he runs indoors on a 160 yards per lap track (11 laps per mile), at which time he does 6-8 x 880 yards in approximately two minutes each, with 480 yards recovery jogging between.

**Spring Training:** Similar to Fall training, except that he takes two track workouts each week: (1) 6-10 x 880 yards in two minutes each, jog 440-880 yards between. (2) 5-6 x one mile in 4:25-4:30 each, jog 440-880 yards between.

Lindgren is coached by Tracy Walters. He prefers to lead and hit a specific time in competition. However, against outstanding opponents he will follow or lead according to what appears most advantageous for him. He does not use weight training. Each workout is ended with one mile of warmdown jogging. He trains the year round, and rests only one day prior to racing. Regardless of the obvious physical ability of this great youth, his coach feels his major asset to competitive success is his excellent mental attitude.

Once the dictum that a certain mountain is unclimbable is well-ingrained in men's conscious and unconscious minds, it is unclimbable. Only when someone arrives too ignorant to know the truth, or too intelligent to believe wholly that it is the whole truth, is it surmounted. So with records in endurance running.

during summer months while on vacation from university, he has sought the advice of Chicago high school and DePaul University coach, Don Amidei. He does no weight training. If his racing objective is merely to win, he prefers following to pace-setting. If his objective is achieving a fast time, he is not opposed to leading if the pace of his opponents proves to be too slow.

Sough he now holds the world indoor mile record (3:56.4), the best is yet to be seen from this youthful world-beater. His modest personality and exemplary personal habits serve as a model to all.

## Foot Plant in Running

## by Toni Nett

(Toni Nett is one of the world's foremost authorities on the technical aspects of track and field athletics. He is technical editor of "Die Lehre der Leichtathletik," published in Berlin, Germany.)

I have taken slow-motion movies (64 pictures per second) of top-notch runners in order to throw light on the problem of more than 50 years standing: how the foot is planted. The interpretations of famous coaches fluctuate between two extremes. Some maintain all runners at all distances plant the foot heel first. Others claim the foot is planted exclusively on the ball by all runners at all distances. The purpose here is to investigate which of the two interpretations is correct, and determine whether there exists a third possibility; namely, that the foot-plant varies with the different distances run.

I stationed myself with the camera at the big meets where outstanding runners performed (poor runners are not reliable, for only performance determines suitability for the study). I lay in wait, with the camera only about 20-30 cm. from the ground, in order that the camera eye could be aimed nearly parallel with the ground. None of the runners knew about our project; they did not notice me so that no "posed" pictures could result.

I did research systemically at all the distances, from the 100 meters to the marathon, filming the best German runners.

Among the foreigners filmed were the Americans Golliday, Taylor, and Brown; the 400 meter record holder, Rhoden, of Jamaica; the Swedes, Ekfeld and Tore Sten; also Italian champ-ions who were starters in the "Meet of the Nations" in Germany.

The following results are not uncontrollable assertions or "interpretations," but data that are visible and verifiable by anyone:

1. Corroboration was obtained of the observation already made by several persons, that all runners at all distances plant the foot on the outside edge, or that here the first contact (not the support or "ride" phase) of the foot with the gound takes place.

2. The point of contact of the foot with the ground is different according to the speed or running; i.e., at each distance it is somewhat different; viz.:

a) At the fastest pace, therefore in the 100 and 200 meter runs, the ground is contacted first on the outside edge of the sole, high on the ball (joints of the little toe), as shown in Figure 1.

b) In the 400 meter run, which is run at a somewhat slower pace, the contact point lies a bit farther back toward the heel; the foot plant is now somewhat flatter.

c) In the 800 meter run, the foot is planted, throughout most of the race, now almost exclusively on the part of the outer edge of the sole which is within the metatarsal arch. Heels and toes are somewhat higher; in fact, the position of the foot is almost completely flat (Figure 2).

d) Now in the 1500 meter run, a further transition takes place: many runners still plant as in the 800m, many also as in the longer distances (see Figure 3)

3) At all distances beyond 1500m, up to the marathon, a first contacting of the ground with the outside edge at the arch between the heel and the metatarsus is confirmed (Figure 3). Fortunately, Zatopek's films corroborate this. The only exception that I was able to get was of the American, Stone, who planted his foot farther forward, almost at the ball. It is not possible, of course, for anyone to prove that Stone for that reason alone actually produced poorer

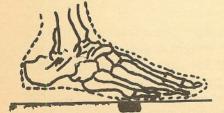


Figure 1.

Figure 2. 462

Figure 3.