

# Illinois Track and Cross Country Coaches Association

January 10<sup>th</sup>, 2009

## *Training for Multi-Jumps*

*By Tim Thompson*

### Outline

- Athletes
- Philosophy in Developing a Program
- Commonalities in Training
- Program Development
- Drills
- Questions and Answers

## Athletes

- Alex Straughn – (5'10" – 155lb) 2007 NCAA Qualifier in High Jump 6'11" High Jump; 23'8" Long Jump; 49'11" Triple Jump
- Lauren Maul – (5'11" – 135lb) 2002 & 2005 NCAA Qualifier 5'10.25" High Jump; 19'11" Long Jump; 41'8.75" Triple Jump
- Deandre Free – (6'0" – 175lb) 2000 Olympic Trials and 2000-2001 NCAA Qualifier in Long Jump; 6'9" High Jump; 26'3" Long Jump; 50'1" Triple Jump
- Matt Voelker – (6'3" – 180lb) 2002 All-American in High Jump 7'3.25" High Jump; 22'3" Long Jump; 48'4" Triple Jump

## Philosophy

- 1 jump vs. 2 jumps vs. 3 jumps at what cost or gain??
  - At what point does training for all 3 take away from peak performance?
  - Can multi-jump training enhance one or more jumps?
- Three considerations to developing training
  - Multi-System Training
  - Multi-Lateral Training
  - Peripheral Issues
- Multi-System Training Philosophy
  - Neuromuscular – Create Force
  - Musculoskeletal – Apply Force
  - Neuroendocrine – Homeostasis
  - Proprioceptive – Sensors; Coordination; Balance
  - Energy Systems – Fuel
- Planned balance to develop each area

## Philosophy

- Multi-Lateral Training Philosophy
  - Primary Biomotors
    - Strength
    - Speed
    - Endurance
    - Flexibility
    - Coordination
  - Peripheral Issues in Jumps Training
    - Lifestyle Issues
    - Restoration Activities
    - Psychological Issues

## Commonalities

- Posture
- Sprint Mechanics
- Body Awareness
- Rhythm
- Approach Development
- Steering
- Preparation and Take-off Mechanics
- Landing or Clearance

## Program Development

- 6 Main Components:
  - Strength
    - Ability to produce Force
  - Speed
    - Ability to move the body and its parts rapidly
  - Endurance
    - Ability to resist fatigue
  - Flexibility
    - Ability to attain larger ranges of motion in the joints
  - Coordination
    - To accurately and efficiently move the body and its parts in order to accomplish some task.
  - Recovery
    - Allows the body to rest and return to higher intensity workouts

## Program Development

- Developing the training there needs to be a “planned balance” throughout the day/week/month/year.
- Build your training from the biggest meet of the year back to the beginning of the year.
- Training adaptation occurs at 95% between 21-28 days.
- Many different ways to arrange your training: Need to adjust your training to your facilities, equipment, and schedule.

## Program Development

- Rest and Recovery: Every mesocycle needs one week of lower volume (you can keep the intensities high) to do testing.
- Each exercise or drill needs to be classified as either a Neuromuscular activity or a General Strength activity.
- Do not mix NM activities on the same day as GS activities.

- |            |          |          |           |          |           |           |
|------------|----------|----------|-----------|----------|-----------|-----------|
| • <u>M</u> | <u>T</u> | <u>W</u> | <u>Th</u> | <u>F</u> | <u>Sa</u> | <u>Su</u> |
| • NM       | G        | NM       | G         | NM       | G         | Rest      |

## Program Development

- For High School Consideration:
  - Three types of activities:
    - Short Duration: Less than 8 seconds
      - Accels – 20m-80m, Plyos, Short Approach, Drills
    - Medium Duration: 10 seconds to 45 seconds
      - Full approach, 100m-300m intervals, Hurdle Mobility
    - Long Duration: 1 Minute and Longer
      - Circuit Training, Aerobic Development, Abs

## Program Development

- High volume dictates low intensity. High intensity dictates low volume. If you have high intensity and high volume you get injuries.
- Warm-up activities and cool-down activities also need to be planned to intensify or ease the body during workouts.
- Training units in a session should be compatible, with some common theme.
- The order should be, Warm-up, technical components, speed/power components, static activities, cool-down.

## Program Development

- The coach should constantly monitor the athlete's power output levels during work. The coach should manipulate rest intervals, distance, sets, and repetitions to achieve the desired volume of work without power production dropping.
- Rest and recovery inclusion is important during the session as well. Periodic brief rest periods can enhance the quality of work.
- Variety in practice may not improve performance in practice, but variety in the practice environment does improve performance in competition.

## Program Development

Monday		Tuesday		Wednesday		Thursday		Friday
Warmup / Stretch								
High Jump		Long Jump		Pool		Triple Jump		High Jump
SAJ		Drills		Cardio		SAJ - FAA		FAA
Interval (HI)		Speed Dev.		Recovery		Speed Dev		Interval (HV)
Hurdle Mob.		Coord/Agilities				Med Ball / Plyos		Hurdle Mob.
Cool Down / Stretch / Core								
GT (Med)		NM (HI)		GT (Low)		NM (Med)		GT (HI)

## Program Development

Monday		Tuesday		Wednesday		Thursday		Friday
Warmup / Stretch								
High Jump		LJ / TJ		High Jump		LJ / TJ		Pre-meet
SAJ		SAJ - FAA		FAA		FAA		
Interval (HI)		Speed Dev.				Speed Dev.		
Hurdle Mob.		Coord/Agilities		Med Ball		Plyos		
Cool Down / Stretch / Core								
GT (Med)		NM (HI)		GT (Med/Low)		NM (Med)		GT (Low)

## Drills

- Plyos
  - Box Jumps
    - Two Feet – One Foot
    - Every other Box
    - Depth Jumps
    - Depth to Hurdles
    - Depth to Med Ball toss
    - Side to Side
  - Jump Rope
    - Single – Double – Triple
    - Fast – Boxers Skip – Side-to-Side
  - Hops / Skips / Bounds
- Lunges
  - Stadiums / Stairs
- Agilities / Coordination
  - Dot Drills
  - Speed Ladder
  - Cone Drills
  - Side Shuffles
- Balance
- Hurdle Mobility

## Question and Answer

- Sources of Learning

USATF Level 1 and Level 2 Coaches Education Program

USTFCCCA Advanced Combined Events Coaches Symposium;  
San Antonio, TX 2006; Rovelto, Schexnayder, McGuire,  
Light.

Presentations by Boo Schexnayder USATF Coaches Meeting,  
Kansas City, MO 2002