SELECTION OF EXERCISES FOR STRENGTH TRAINING
FOR HIGH SCHOOL THROWERS. (OFF SEASON)

   1.) Pulls: Hang Cleans, Power Cleans, High Pulls, Power Snatches, Hang Snatches, Pulls,
       from Boxes or from Pin level in a Power Rack. (4-6 set limit per workout 1 exercise)
   2.) Aux. Pulls: Dead lifts, 1/2 Dead Lifts (top of knee level), or A Pull different from the one
       that was just performed. (High Pull, Snatch ect.). (3-4 set limit per workout 1 exercise)
   3.) Rowing Movements: Seated, Bent Over, Standing, or any machine that is in your weight
       room. (3 set limit 1 exercise)
   4.) Lat Movements: Pulldowns (front and back), Pullovers (machine or free weight).
       (3 set limit 1 exercise)
B.) DAY TWO: LEG DAY
   1.) Squats: Back Squats, Box Squats, Safety squat (4-6 set limit per workout, 1 exercise)
   2.) Specific Leg Work: Front Squats, Step Ups, One Legged Squats, Lunges, or Leg Press.
       (3-4 set limit 1 exercise)
   3.) Leg Aux.: Leg Curl, Leg Extension, Calf work, ect. (3 set limit 1 exercise)
   4.) Stomach: 50-100 reps any type of Abdominal work.
C.) DAY THREE: UPPER BODY DAY
   1.) Bench Work: Bench, Incline, Decline, DB Bench or Incline, Close Grip ect.(4-6 set limit 1
       exercise)
       Jerks ect. (3-4 set Limit 1 exercise)
   3.) Tricep Work: Tricep Press, Dips, Cable Pushdowns, Tricep Machines ect. (3 set limit 1
       exercise)
   4.) Bicep Work: Barbell curls, DB curls, Preacher curls, Machine curls ect.(3 set limit 1
       exercise)
D.) THROWING AND DRILL WORK:
   1.) Shot Putters and Discus Throwers: Should throw 3-4 times a week, 20-40 throws, teaching
       and correction of technique done daily.
   2.) Shot Drills (glide): Forward facing standing throws, step back standing throws, no-reverse
       standing throws, Double hop throws, Double hop no-reverse throws, Pull unders, Stiff leg
       glides, Full throws with no-reverse. Full throws with a reverse.
   3.) Shot & Discus Drills (rotational): 1/4 turns, 1/2 turns, south african, turn out south african,
       touch and go south african, 1/2 south african, standing throws (with or without reverse),
       walking throws, multi-turn throws, no-reverse full throws, throws with balls, power balls,
       bars, cones ect. (discuss).
E.) PLYOMETRICS AND SPRINTS:
   1.) Plyometrics: 30-60 touches over 8-24 inch barriers. 70% of the workout performing double
       leg jumps, 30% of workout performing single leg jumps. (1 time a week)
   2.) Sprinting: 6-8 30-40 meter sprints after a good warm-up. (1 time a week)

LIFTING NOTES: Athletes should not perform the same lifting exercise, per category for more than 3
continuous weeks. Athletes should take 3-5 minutes rest between sets. Lifting workouts should last no
longer than 70 minutes, and no more than 16-20 sets per session should be performed (Except for peaking
cycle). Weekly workout sessions can be performed with a day in between or 3 days in a row. Lifting cycles
are either (Ladder) meaning the same repetitions performed with heavier weight each set, trying to achieve a
new weight that has not been previously achieved or (Pyramids) either high or low, where the reps decrease
as the weight increase trying to accomplish a new top set personal record within the lifting cycle.

COMPETITION SEASON (MAY - STATE MEET)
A.) WEIGHT TRAINING:(Changes to a two day a week sessions)

1.) Heavy Day: (takes place 5-6 days out from major meet) Consists of 5-7 sets of Cleans or Snatches, 5-7 sets Squats, 5-7 sets of Bench or Incline Bench.

2.) Light & Fast Day: (takes place 2-3 days out from major meet) Consists of 3 sets of Cleans or Snatches, 3 sets Back Squats or 1/2 Squats, and 3 sets of Close Grip Bench or Incline. (all lifts are not to exceed 60% of whatever your top set was per exercise on your heavy day. This workout should take only 20-25 minutes.)

B.) FIVE WEEK PEAKING CYCLE:(Design to peak at State Meet)

2.) 5 WEEKS OUT FROM STATE MEET: This is when you go from 3 days a week lifting two days a week lifting. All assistance lifts are discontinued and only three major lifts remain.


5.) 3 WEEKS OUT: SECTIONAL WEEK, (Lifting is now a 3,3,3,3,3, Ladder going for 3 rep Personal Records, this is the day you go for a squat personal record.) (Note: This is the last time you can squat heavy before State. It takes 14 days to recover from a pr squat and 21 days before your legs feel fresh.)

6.) 2 WEEKS OUT:REGIONAL WEEK; (Lifting is now a 3,3,2,1,1, Pyramid going for new PR’S in the Cleans and Bench. (Squats have a 75% of max limit in this week)

7.) 1 WEEK OUT: STATE CHAMPIONSHIP WEEK, (Lifting is now a 3,2,2,2,1,1, Pyramid looking for a Clean PR and a Bench PR. If the cleans and bench are setting new records you know your athlete is peaking out. It also will show up in his throwing and sprinting. (Squats have a 65% of max limit in this week)

8.) THROWING: Start each week with 30-40 throws for two throwing sessions. The last throwing session before Sectionals, Regionals, and State should be no more than 20 throws, starting with a 3 throw mock meet and ending with 7-10 throws with a lighter implement.(10lb boys,7lb girls). The day before each meet is a Rest Day and Nothing should be done. Throwers should learn to be ready with 4 or less warm-up throws and never give maximum effort. Long warm-up throws result in just one less good throw you are going to get when you need it.

9.) SPRINTS AND JUMPS: They are discontinued 3 weeks out from state meet.

This system of training for Indiana High School Shot and Discus throwers has produced an 84% success rate of personal record throws or within 2% or personal record throws at the desired time. It has produced 217.1 boy discus thrower, 169.8 girl discus thrower, 66.8 boy shot putter, 50.8 girl shot putter, 20 State championships, 6 State records and 41 other top 6 finishes since 1980. This paper is an actual example of 80% of the kids I worked with who played a fall sport, and then started training for track. If you are training an all-year track athlete, you simply have a 2 month longer base training period and more throwing instruction but the rest is basically the same. On the other hand, the winter sport athlete just simply has to take this example and cut all the training cycles in half to achieve the same type of peaking effect. The girls who have accounted for 48% of all those state places simply have to move the peaking process back 2 days to adjust for their Tuesday, sectionals and regionals but sometimes need some adjusting depending on where their conference meets fall. The Monday, Wednesday, Friday off-season lifting works well because most high school meets fall on Tuesday, Thursday, Saturday. I would preferred lifting 3 days in a row, rather than with a day in between, but this poses to many problems for training within the high school structure. I hope this paper will present a real life example of Shot and Discus training and how to get that big throw at the State Meet. For those athletes looking to peak out for conference or sectionals simply move back this program 3-4 weeks to get the exact same results. In the sixteen years I have enjoyed coaching high school athletes, college athletes, national level athletes, and International level athletes, I could always guarantee that an athlete at the big meet will have the physical ability to throw their best or near their best, but actually doing it when it counts is totally up to the athlete and because of this, even the best preparation can produce a poor result.
HIGH SCHOOL TRAINING SYSTEM FOR THROWERS  
BY JOHN JAY SMITH

SHOT & DISCUS TRAINING FOR THE TYPICAL FALL SPORT HIGH SCHOOL ATHLETE (NOV-JUNE) 1996

1. NOVEMBER: After the fall season ends, I use this month to teach hang cleans, power cleans, high pulls, box pulls, squats, front squats, benching, and plyometrics. I also start instruction in shot and discus technique, and the drills and positions to achieve this technique. I also teach the use of straps, belts, wraps, and proper spotting techniques. I also establish safety rules for lifting and throwing. During this month the athletes do their own workouts while I observe and correct. I used this time to establish starting points and also to start to establish goals for each thrower based on my observation of each athlete's training ability.

2. DECEMBER: 4 WEEKS OF 12 REPS/8 REPS ON PULLS, (LADDER) 30% OF MAX STARTING POINT

WEEK #1
MON: PULLS 4-6 SETS X 8 REPS, AUX. PULLS 3-4 SETS X 5 REPS, ROWS 3 SETS X 12 REPS, LATS 3 SETS X 12 REPS
TUES: TECHNIQUE & DRILL WORK SHOT & DISCUS, 6-8 30-40 METER SPRINTS,
WED: B.SQUAT 4-6 SETS X 12 REPS, SPEC. LEG 3-4 SETS X 12 REPS, LEG AUX. 3 SETS X 12 REPS, ABS 50-100 REPS
THUR: TECHNIQUE & DRILL WORK SHOT & DISCUS, PLYOMETRICS 40-50 TOUCHES 8-16 INCH BARRIERS
FRI: BENCH 4-6 SETS X 12 REPS, OVERHEAD 3-4 SETS X 12 REPS, TRICEPS 3 SETS X 12 REPS, BICEPS 3 SETS X 12 R
SAT: OPTIONAL THROWING DAY
SUN: REST DAY

WEEK #2, WEEK #3, WEEK #4
Each week on every exercise the athlete tries to perform a better top set of the repetitions specified. Every third week the athlete should choose a different exercise per category to avoid staleness within the cycle.

3. JANUARY: 5 WEEKS OF 8 REPS / 6 REPS ON PULLS, (LADDER) 40% OF MAX STARTING POINT

WEEK #1
MON: PULLS 4-6 SETS X 8 REPS, AUX. PULLS 3-4 SETS X 4 REPS, ROWS 3 SETS X 8 REPS, LATS 3 SETS X 8 REPS
TUES: TECHNIQUE & DRILL WORK SHOT & DISCUS, 6-8 30-40 METER SPRINTS,
WED: B.SQUAT 4-6 SETS X 8 REPS, SPEC. LEG 3-4 SETS X 8 REPS, LEG AUX. 3 SETS X 8 REPS, ABS 50-100 REPS
THUR: TECHNIQUE & DRILL WORK SHOT & DISCUS, PLYOMETRICS 40-50 TOUCHES 8-16 INCH BARRIERS
FRI: BENCH 4-6 SETS X 8 REPS, OVERHEAD 3-4 SETS X 8 REPS, TRICEPS 3 SETS X 8 REPS, BICEPS 3 SETS X 18 R
SAT: OPTIONAL THROWING DAY
SUN: REST DAY

WEEK #2, WEEK #3, WEEK #4, WEEK #5
Each week on every exercise the athlete tries to perform a better top set of the repetitions specified. Every third week the athlete should choose a different exercise per category to avoid staleness within the cycle.

4. FEBRUARY: 4 WEEKS OF (HIGH PYRAMID) 8, 7, 6, 5, 4, 4, 4, 3, 40% OF MAX STARTING POINT

WEEK #1
MON: PULLS 4-6 SETS X (HP) AUX. PULLS 3-4 SETS X (HP), ROWS 3 SETS X (HP), LATS 3 SETS X (HP)
TUES: TECHNIQUE & DRILL WORK SHOT & DISCUS, 6-8 30-40 METER SPRINTS,
WED: B.SQUAT 4-6 SETS X (HP), SPEC. LEG 3-4 SETS X (HP), LEG AUX. 3 SETS X (HP), ABS 50-100 REPS
THUR: TECHNIQUE & DRILL WORK SHOT & DISCUS, PLYOMETRICS 40-50 TOUCHES 8-16 INCH BARRIERS
FRI: BENCH 4-6 SETS X (HP), OVERHEAD 3-4 SETS X (HP), TRICEPS 3 SETS X (HP), BICEPS 3 SETS X (HP)
SAT: OPTIONAL THROWING DAY
SUN: REST DAY

WEEK #2, WEEK #3, WEEK #4
Each week on every exercise the athlete tries to perform a better top set of the repetitions specified. Every third week the athlete should choose a different exercise per category to avoid staleness within the cycle.

5. MARCH: 4 WEEKS OF 5 REPS / 3 REPS ON PULLS 50% OF MAX STARTING POINT

WEEK #1
MON: A, J THROWING PRACTICE SHOT OR DISCUS 30-40 THROWS, TECHNIQUE AND CORRECTION
B.) PULLS 4-6 SETS X 3 REPS AUX. PULLS 3-4 SETS X 3 REPS, ROWS 3 SETS X 5 REPS LATS 3 SETS X 5 REPS

TUES: THROWING PRACTICE BOTH SHOT & DISCUS 30-40 THROWS, 6-8 30-40 METER SPRINTS,

WED: B.SQUAT 4-6 SETS X 5 REPS, SPEC. LEG 3-4 SETS X 5 REPS, LEG AUX. 3 SETS X 5 REPS, ABS 50-100 REPS

THUR: TECHNIQUE & DRILL WORK SHOT & DISCUS, PLYOMETRICS 40-50 TOUCHES 12-20 INCH BARRIERS

FRI: A.) THROWING PRACTICE SHOT OR DISCUS 30-40 THROWS, TECHNIQUE AND CORRECTION
   B.) BENCH 4-6 SETS X 5 REPS, OVERHEAD 3-4 SETS X 5 REPS, TRICEPS 3 SETS X 5 REPS

SAT: OPTIONAL THROWING DAY/ OR MEET DAY

SUN: REST DAY

WEEK #2, WEEK #3, WEEK #4 (COMPETITION DAYS CAN SUBSTITUTE FOR THROWING PRACTICES AND LIFTING DAYS CAN BE DONE AFTER COMPETITION OR THE NEXT DAY.)

Each week on every exercise the athlete tries to perform a better top set of the repetitions specified. Every third week the athlete should choose a different exercise per category to avoid staleness within the cycle.

6. APRIL: 4 WEEKS OF LOW PYRAMID 5,5,5,4,4,4, 50% OF MAX STARTING POINT

WEEK #1

MON: A.) THROWING PRACTICE SHOT OR DISCUS 30-40 THROWS, TECHNIQUE AND CORRECTION
   B.) PULLS 4-6 SETS X (LP) AUX. PULLS 3-4 SETS X (LP), ROWS 3 SETS X (LP), LATS 3 SETS X (LP)

TUES: THROWING PRACTICE BOTH SHOT & DISCUS 30-40 THROWS, 6-8 30-40 METER SPRINTS,

WED: B.SQUAT 4-6 SETS X (LP) SPEC. LEG 3-4 X (LP), LEG AUX. 3 SETS X (LP), ABS 50-100 REPS

THUR: TECHNIQUE & DRILL WORK SHOT & DISCUS, PLYOMETRICS 40-50 TOUCHES 16-24 INCH BARRIERS

FRI: A.) THROWING PRACTICE SHOT OR DISCUS 30-40 THROWS, TECHNIQUE AND CORRECTION
   B.) BENCH 4-6 SETS X (LP), OVERHEAD 3-4 SETS X (LP), TRICEPS 3 SETS X (LP), BICEPS 3 SETS X (LP)

SAT: OPTIONAL THROWING DAY/ OR MEET DAY

SUN: REST DAY

WEEK #2, WEEK #3, WEEK #4 (COMPETITION DAYS CAN SUBSTITUTE FOR THROWING PRACTICES AND LIFTING DAYS CAN BE DONE AFTER COMPETITION OR THE NEXT DAY.)

Each week on every exercise the athlete tries to perform a better top set of the repetitions specified. Every third week the athlete should choose a different exercise per category to avoid staleness within the cycle.

COMPETITION PEAKING PROCESS (5 WEEK CYCLE)

7. WEEK OF APRIL 28-MAY 4 (TRANSITION TO HEAVY DAY/LIGHT DAY LIFTING)

3 REP LADDER PERFORMING JUST THE 3 MAJOR LIFTS.

MON: HEAVY DAY, PULLS 5-7 SETS X 3 REPS, B.SQUAT 5-7 SETS X 3 REPS, BENCH 5-7 SETS X 3 REPS

TUES: 1.) THROWING FOR DISTANCE (BOTH EVENTS 30-40 THROWS) 7-10 THROWS WITH LIGHT IMPLEMENT (SHOT)
   2.) PLYOMETRICS 40-50 TOUCHES 16-24 INCH BARRIERS

WED: THROWING FOR DISTANCE (BOTH EVENTS 20-40 THROWS) 7-10 THROWS WITH LIGHT IMPLEMENT (SHOT)

THUR: LIGHT DAY, (60% OF TOP SET ON HEAVY DAY LIMIT)

FRI: 1.) THROWING PRACTICE BOTH EVENTS 30-40 THROWS, RECORD TOP 5 THROWS IN PRACTICE
   2.) 6-8 30 METER DASHES

SAT: OPTIONAL THROWING DAY/ OR MEET DAY

SUN: REST DAY

WEEK #3, WEEK #4 (COMPETITION DAYS CAN SUBSTITUTE FOR THROWING PRACTICES AND LIFTING DAYS CAN BE DONE AFTER COMPETITION OR THE NEXT DAY.)

Each week on every exercise the athlete tries to perform a better top set of the repetitions specified. Every third week the athlete should choose a different exercise per category to avoid staleness within the cycle.

8. WEEK OF MAY 5-MAY 11 3 REP LADDER, TRADITIONAL CONFERENCE WEEK

MON: HEAVY DAY, PULLS 5-7 SETS OF 3 REPS, B.SQUAT 5-7 SETS OF 3 REPS, BENCH 5-7 SETS OF 3 REPS

TUES: 1.) THROWING FOR DISTANCE (BOTH EVENTS 30-40 THROWS) 7-10 THROWS WITH LIGHT IMPLEMENT (SHOT)
   2.) PLYOMETRICS 20-40 TOUCHES 16-24 INCH BARRIERS

WED: THROWING FOR DISTANCE (BOTH EVENTS 20-40 THROWS) 7-10 THROWS WITH LIGHT IMPLEMENT (SHOT)

THUR: LIGHT DAY, (60% OF TOP SET ON HEAVY DAY LIMIT)

FRI: 1.) THROWING PRACTICE BOTH EVENTS 15-25 THROWS, RECORD TOP 5 THROWS IN PRACTICE
   2.) CONFERENCE MEET

SAT: 1.) CONFERENCE MEET
   2.) HEAVY DAY, B.SQUAT 3,3,3,2,1,1, (LAST TIME ATHLETE CAN SQUAT HEAVY) PULLS 3,3,3,2,1,1,
   BENCH 3,3,3,2,1,1

SUN: REST DAY

9. WEEK OF MAY 12-MAY 18 3,3,3,2,1,1, (LOW PYRAMID) SECTIONAL WEEK

MON: THROW BOTH EVENTS FOR DISTANCE 20-30 THROWS, 20-30 TOUCHES PLYOMETRICS 24” BARRIERS

TUES: 1.) THROW BOTH EVENTS, RECORD TOP 5 THROWS, 20-30 THROWS, 7-10 WITH LIGHT IMPLEMENT (SHOT)
   2.) LIGHT AND FAST LIFTING, PULLS 3X3, SQ OR 1/2 SQ 3X3, BN 3X3

FRI: REST DAY

SAT: 1.) CONFERENCE MEET
   2.) HEAVY DAY, B.SQUAT 3,3,3,3,2,1,1, (LAST TIME ATHLETE CAN SQUAT HEAVY) PULLS 3,3,3,2,1,1,
   BENCH 3,3,3,3,2,1,1

SUN: REST DAY
DAY TOP SET.)
WED : REST DAY BEFORE SECTIONAL MEET
THUR : COMPETE SECTIONALS
FRI : HEAVY DAY, PULLS 5-7 SETS 3,3,3,2,1,1, B.SQUATS, 3,3,3,2,1,1,(TOP SET SHOULD NOT EXCEED 75% OF MAX) BENCH 5-7 SETS 3,3,3,2,1,1,(GOING FOR PERSONAL RECORDS ON PULLS AND BENCH) SAT: THROW BOTH EVENTS FOR DISTANCE 20-30 THROWS,7-10 THROWS LIGHT IMPLEMENT (SHOT) SUN : REST DAY

10. WEEK OF MAY 19-MAY 25 3,3,3,2,1,1, (LOW PYRAMID) REGIONAL WEEK
MON: THROW FOR DISTANCE BOTH EVENTS 20-30 THROWS, 7-10 THROWS WITH LIGHT SHOT, RECORD TOP 5 THROWS FOR THE PRACTICE, DISCONTINUE PLYOMETRICS.
TUES: 1.) THROW BOTH EVENTS, RECORD TOP 5 THROWS, 20-30 THROWS, 7-10 WITH LIGHT IMPLEMENT(SHOT) 2.) LIGHT AND FAST LIFTING, PULLS 3X3, SQ OR 1/2 SQ 3X3, BN OR CLOSE GRIP BN 3X3(60% OF HEAVY DAY TOP SET.)
WED : REST DAY BEFORE REGIONAL MEET
THUR : COMPETE REGIONALS
FRI : REST DAY
SAT : HEAVY DAY, PULLS 5-7 SETS 3,3,3,2,1,1, B.SQUATS, 3,3,3,2,1,1,(TOP SET SHOULD NOT EXCEED 65% OF MAX) BENCH 5-7 SETS 3,3,3,2,1,1,(GOING FOR PERSONAL RECORDS ON PULLS AND BENCH) SUN : THROW BOTH EVENTS FOR DISTANCE 20-30 THROWS,7-10 THROWS LIGHT IMPLEMENT (SHOT), RECORD TOP THROWS IN PRACTICE.

11. WEEK OF MAY 26-JUNE 1 3,3,3,2,1,1, (LOW PYRAMID) STATE WEEK
MON: THROW FOR DISTANCE BOTH EVENTS 20-30 THROWS, 7-10 THROWS WITH LIGHT SHOT, RECORD TOP 5 THROWS FOR THE PRACTICE, DISCONTINUE PLYOMETRICS.
TUES: LIGHT AND FAST LIFTING, PULLS 3X3, SQ OR 1/2 SQ 3X3, BN OR CLOSE GRIP BN 3X3(60% OF HEAVY DAY TOP SET.)
WED : LAST THROWING PRACTICE 10-20 THROWS FOR DISTANCE GO FOR PRACTICE PERSONAL RECORDS
THUR : REST DAY BEFORE STATE
FRI : STATE CHAMPIONSHIPS
SAT : IF STATE FALLS ON SATURDAY PUSH ALL DAYS 1 DAY FORWARD FROM REGIONALS.

12. MIDWEST MEET OF CHAMPIONS (JUST REPEAT STATE WEEK TRAINING)