

AIR TRACTOR, INC.

Olney, Texas

AGRICULTURAL FLYING (Continued)

Swath: (Spraying) (Continued)

2. Spray runs may be made at 135 to 140 mph (117 to 122 kts) (217 to 225 km/h) (IAS) when the aircraft is heavy, which will provide good penetration as well as adequate speed for pull-ups and turns.
3. As load diminishes, reduce RPM by 50 RPM increments so that as hopper nears empty, RPM is 2,000.
4. Reduce torque pressure as load diminishes to avoid excess speed over the crop, which reduces penetration. Spray speeds of 130 to 135 mph (113 to 117 kts) (209 to 217 km/h) (IAS) are normal as the hopper nears empty.
5. The operator should select a speed which feels comfortable and best fits his particular operation. In gusty air always use 5 to 7 mph (4 to 6 kts) (8 to 11 km/h) (IAS) more speed during turns when loaded.

Pull-Ups:

1. Prior to pull-up apply additional power smoothly.
2. Abrupt pull-ups should be avoided since excessive speed is lost which reduces turn performance.
3. When making pull-ups over wires avoid starting to bank too soon.

Turns:

1. The previous training and experience will influence the operator flying the AT-502B. All conventional types of turns may be performed in the AT-502B.
2. Flaps may be used as a turning aid providing small deflections are used (5 to 8 degrees). The usual method of using flaps is to make the pull-up and initial bank with flaps retracted. As the aircraft is being banked to turn back into the field touch the flap switch briefly and let off a little back pressure on the stick, as the flaps cause a slight pitch up tendency. Continue the turn, and as you line up for your pass, retract the flaps.
3. Make coordinated turns. Use the slip indicator as a means of determining whether or not you are carrying bottom rudder. The AT-502B has excellent stall characteristics and if the aircraft is inadvertently placed in an impending stall situation, it is only necessary to relax some back pressure on the stick to make recovery, and little altitude is lost, providing the turn is coordinated. A stall from a skidding turn will result in the nose dropping sharply with a significant loss of altitude.
4. In addition to being hazardous, a skidding turn can transfer fuel from one tank to another, which will result in flameout if one tank runs dry. Monitor the fuel level in each tank when the fuel level reaches 1/2 tank. Fuel transfer can occur when flying a racetrack pattern if the turns are not coordinated.