



## Planter Frame Leveling Tips

Every producer knows that planting is one of the most important operations throughout the course of the growing season. For this reason producers spend countless hours repairing and fine tuning their planters for the upcoming season. One area that often gets overlooked is planter frame leveling. The most common error with planter frame leveling is having the planter drawbar too low. (The front edge of the tool bar is lower than the rear edge). This can create the following problems:

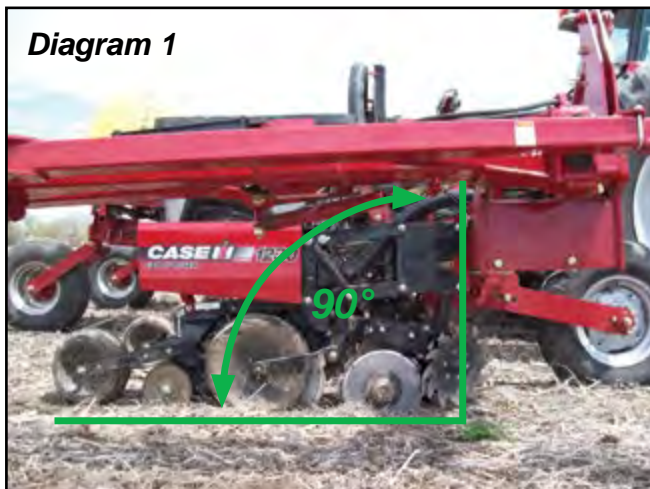
- Sunco NutriMate 3 Row Unit Mounted Fertilizer Attachments running too deep
- Sunco Row Cleaners Running too deep
- Too little down pressure available on row unit creating excessive row unit bounce
- Closing wheels being tipped incorrectly creating poor closing
- Seed tube not being vertical enough creating seed spacing issues

For a correctly leveled planter tool bar Sunco recommends the following:

- Tool Bar Height: Should be set to 20"-22" off the ground when planting to the bottom of the tool bar. This should be measured with the planter in the field in soil conditions the planter will be operating in.
- Tool Bar Levelness: The main tool bar must run level to slightly higher in the front than in the rear of the bar. The side of the tool bar should create a 90° (See diagram 1 below). This also must be checked when the planter is moving forward in the field as the tractor may sink into the soil further than the planter causing the tool bar to be lower in the front than in the rear of the bar.

### **A LEVEL PLANTER HITCH DOES NOT NECESSARILY MEAN THE TOOL BAR IS LEVEL**

- If you do not have a level handy try using a free Level App for your Smart Phone
- If the tool bar is hard to see due to a bulk fill system, vacuum lines or seed delivery lines, check the bolts that connect the parallel linkage to the row unit. The two bolts must be plumb (straight up and down). The top bolt should never be ahead of the bottom bolt, if anything, the top bolt should be behind the bottom bolt. (See diagram 2 below)





~2° nose-up (good)

courtesy Exapta Solutions

*The planter toolbar and row units MUST run level (ignore the planter tongue's angle) with the terrain.*

# PLANTER TOOL BAR ADJUSTMENT IS CRITICAL

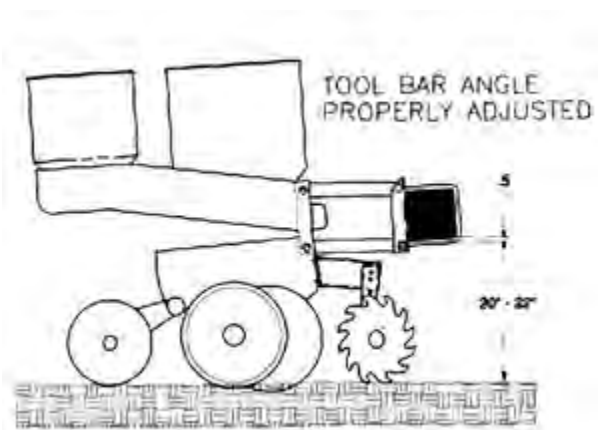
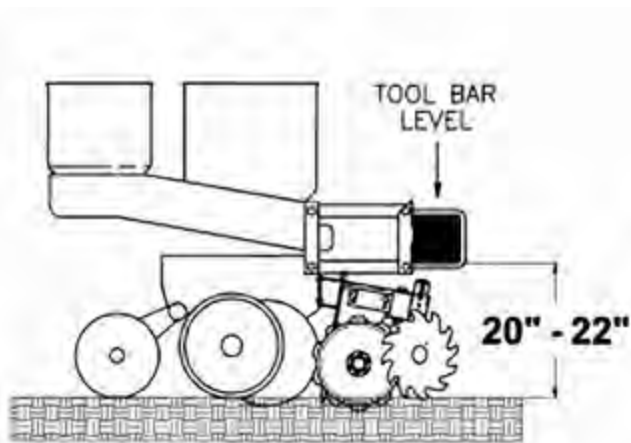
ESPECIALLY WHEN MOUNTING ATTACHMENTS TO THE ROW UNITS

CORRECT ADJUSTMENTS FOR PROPER PLANTER AND ATTACHMENT OPERATION

## TOOL BAR LEVELNESS

FOR PROPER PLANTER OPERATION:

- TOOL BAR SHOULD BE LEVEL TO 1/2" (MAXIMUM) HIGHER IN THE FRONT THAN IN THE REAR.
- FOR BEST RESULTS, PLANTER SETTINGS SHOULD BE MADE IN THE FIELD USING A BUBBLE LEVEL ON TOOL BAR

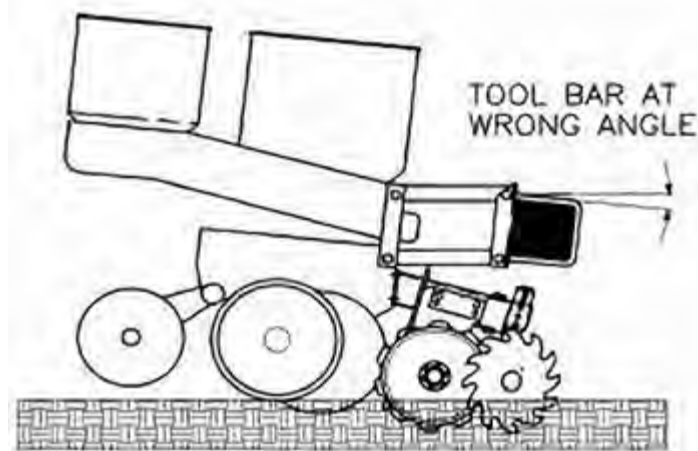


NUTRIMATE & SABER TOOTH WILL OPERATE PROPERLY

BOTH DIAGRAMS SHOW PROPER TOOL BAR LEVELNESS AND PROPER TOOL BAR HEIGHT.  
NOTE: PARALLEL LINKAGE DOES NOT HAVE TO BE LEVEL

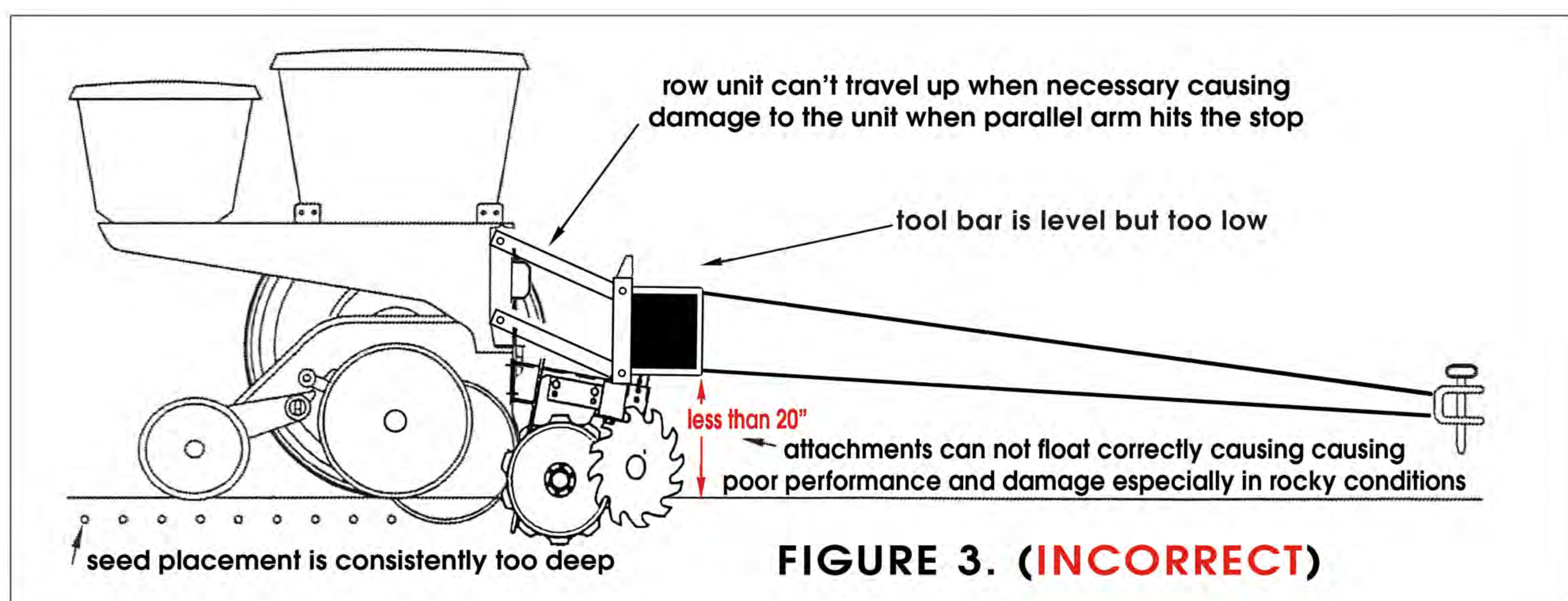
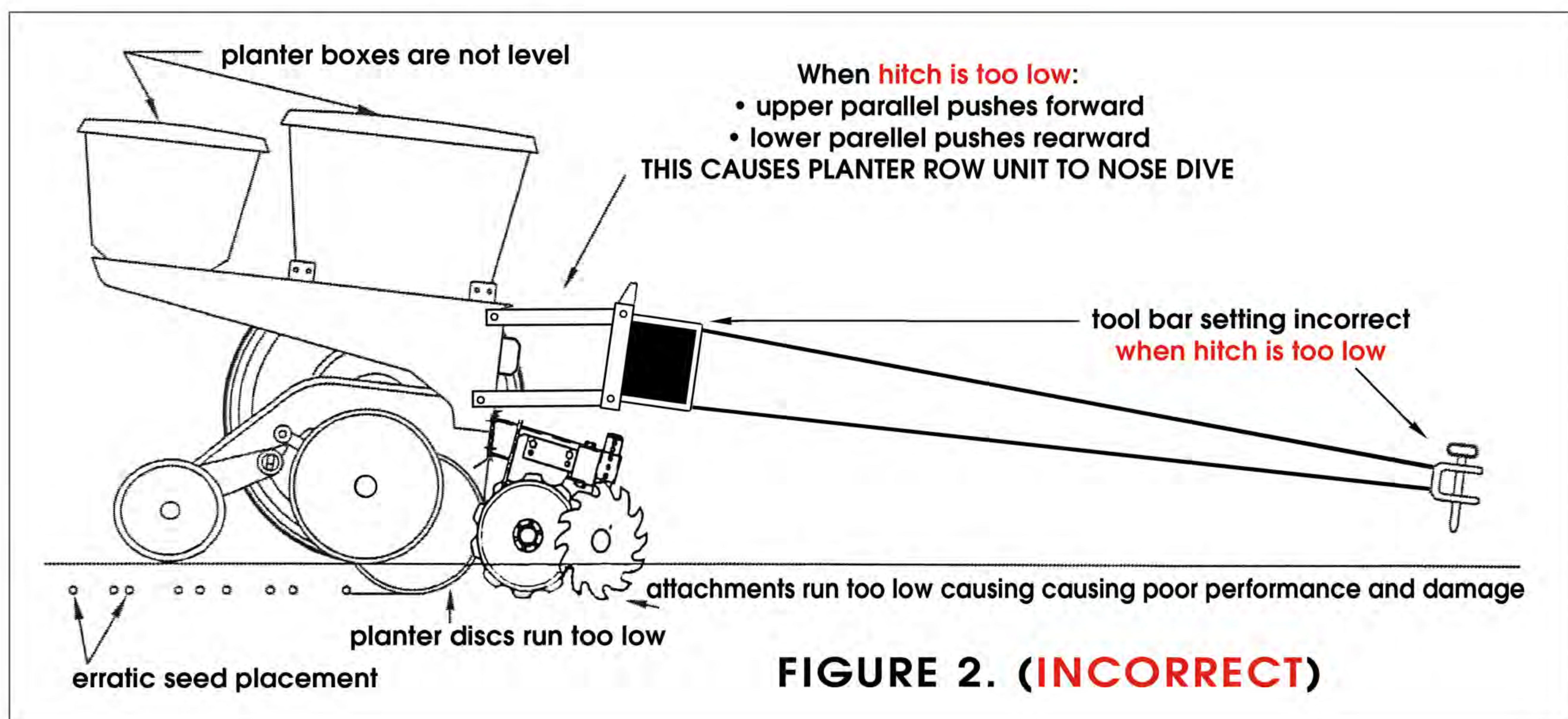
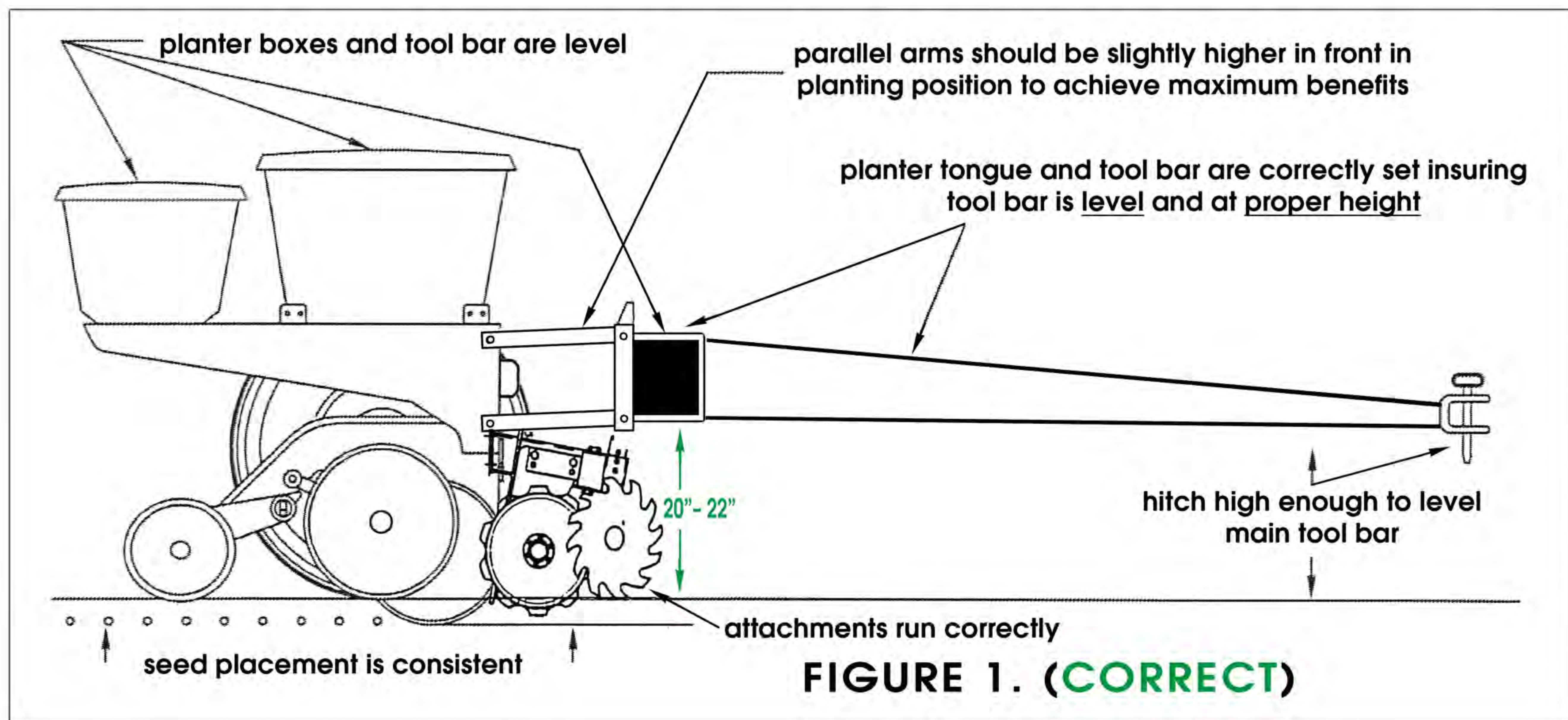
## INCORRECT ADJUSTMENTS AND THE PROBLEMS THAT RESULT

A LEVEL PLANTER HITCH DOES NOT NECESSARILY MEAN THE TOOL BAR IS LEVEL



- TOOL BAR AND ROW UNIT AT WRONG ANGLE (LOWER IN FRONT) CAUSES ROW UNIT TO NOSE DIVE and NUTRIMATE & SABER TOOTH TO RUN TOO DEEP AND AT THE WRONG ANGLE.

# PLANTER ADJUSTMENT and OPERATING TIPS



## Summary

- Always run planter tool bar level and at the proper height as shown in Figure 1
- Never run planter as shown in Figures 2 and 3
- For best results, make planter adjustments in the field, loaded, with correct tire pressure
- In rocky conditions, run tool bar higher for more up travel so parallels don't hit the stops when going over rocks and avoid excessive down force on planter row units so they can float.