That's a claim!



"100% safe!" People often think about the benefits of interven tions and ignore ntervention are 100%

Key Concepts for thinking critically about agriculture claims



"Intervention

necessary. Sometimes an intervention will make

no difference and may

necessarily better data

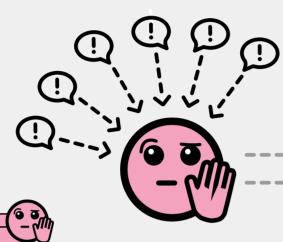
whatever the source

needed!"

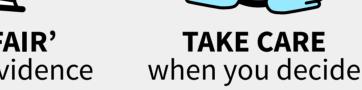








BEWARE about the evidence of claims





eliably in intervention

Lots of missing

ook out for intervention

what happened was not

omparisons where

subjects

THINK 'FAIR'

from those available to you? that were not assessed

Always ask yourself if the interventions evaluated in fair comparisons

TAKE CARE

What outcomes

matter to you?

Always ask yourself

outcomes that are

important to you have been measured in fai

TAKE CARE

Are the interventions used in studies different

Outcomes counted in the wrong group

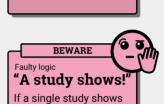
Look out for intervention omparisons where vere not counted in the group to which they ere assigned.

Always ask yourself whether the possible advantages of an the disadvantages of the

TAKE CARE How sure are you?

Always ask yourself how sure you are that he possible advantage better than the possibl disadvantages of the





"No comparison that there is a good or bad effect of an empared to something intervention, it does not else, it is not possible to mean that is the final



omparisons where the omparison groups wer



between studies that are

THINK 'FAI

Selective

Dissimilar care ook out for interventio omparisons where the comparison groups wer reated differently.

expectations ook out for intervention omparisons where eople knew which have changed how they elt or behaved.

Dissimilar

THINK 'FAIR

Relative effects ook out for intervention

ffects that are described

s relative effects.

Dissimilar

measurement

omparisons where

what happened was

ook out for intervention

he comparison groups

Average effects ook out for intervention ffects that are described s average differences

Few subjects or events

Look out for intervention ffects that are based on small studies with

"Old is better!

ntervention is widely practiced or has been used for a long time, it beneficial or safe.

"Early is better!"

Earlier detection is not necessarily better.



pensive, technological npressive, or brandhat it is better or safer

"Tailored or

customised

interventions"

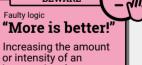
t is rarely possible to

ow in advance which

pecific situations/loca

ions will benefit or not

rom an intervention.



intervention does not always increase the enefits and may caus

BEWARE 6 5

"As advertised!"

out the effect of inter-

making money, may over-state benefits and ignore possible negative effects.

ntions. Someone with ar interest in getting people to use an intervention, such as

Unsystematic summary

ook out for reviews (or ummaries) of studies omparing intervention carried out systematicall

Subgroup

ook out for results

within a study or

systematic review.

hat are reported for a

analyses

reporting ook out for unpublished esults of fair compari sons. All results of studies should be eported (even where hev are unfavourable, o

e effects are minimal

No confidence

re reported using

-values instead of

onfidence intervals.

ook out for results that

interval

assumptions ook out for intervention omparisons that are ensitive to assump tions that are made.

Unfounded

Just words ook out for interventio effects that are described just using

THINK 'FAIR' - and check the evidence from intervention comparisons

Evidence from comparisons of interventions can fool you. You should think carefully about the evidence that is used to support claims about the effects of interventions.

Look out for:

- Unfair comparisons of interventions
- Uncareful summaries of comparisons
- How intervention effects are described

TAKE CARE - and make good choices

Good intervention choices depend on thinking carefully about what to do.

Think carefully about:

- What your problem is and what your options are
- Whether the evidence is relevant to your problem and options
- Whether the advantages outweigh the disadvantages

TAKE CARE What is your problem and what are your options? When you are thinking about interventions, make sure that you





very different? Always ask yourself if the intervention comparisons included only subjects (e.g. crops livestock, farms) that are very different to the nes that you are

TAKE CARE

Are the circum-

rent from yours?

Always ask yourself

if fair comparisons of interventions were

TAKE CARE

Do the advantages

disadvantages for

outweigh the

onducted in

circumstances that are relevant.

stances diffe-

A **claim** is something someone says that could be right, but could be wrong. People make lots of claims about intervention effects. How can we tell which claims are right or wrong? To do this, you need to look at what supports their claim - its **basis**. For example, personal experience is not a good basis for a

Introduction

How do you decide what is best to

not do on their farms. How can you

know which of these claims are trust-

worthy? And how should you decide

An "intervention" can be anything a

of tillage used, using antibiotics on

benefit of farmers generally — for

example, providing farm advice or

making funding available. An effect

is something an intervention makes

happen—like improving yields or outputs.

farmer does for the farm — for example.

applying a pesticide, changing the type

livestock, or not using antibiotics. It can

also be something that is done for the

when to act on claims?

improve the efficiency and sustainability of agriculture? There are lots of claims about what farmers should and should

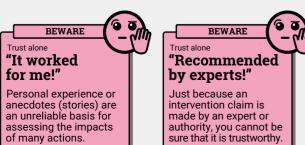
claim about what is good for your farm. This is because we don't know what would have happened if that person had done something else.

To know if an intervention (like changing a tillage regime) causes an effect (like improved yields), the intervention has to be **compared** to something else (like no tillage). Researchers compare an intervention provided to one group with something else given to another group. Those comparisons provide evidence — facts to support a conclusion about whether a claim is right or wrong. For those comparisons to be fair, the only important difference between the groups should be the interventions.

A **good choice** is one that uses the best information available at the time. For agriculture choices, this includes using the best available evidence of intervention effects. Good choices don't guarantee good outcomes, but they make good outcomes more likely.

www.thatsaclaim.org/agricultural/

"It worked for me!" Personal experience or anecdotes (stories) are an unreliable basis for



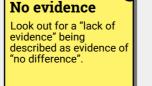






"not statistically

ignificant".



THINK 'FAIR'

interventions are not trustworthy. Often this is because the reason (the basis) for the claim is not trustworthy.

You should be careful when you hear claims that are:

BEWARE of claims that have

Many claims about the effects of

an untrustworthy basis

- Too good to be true
- Based on faulty logic
- Based on trust alone

nformed Choices Network